



**MAFFS and  
MILITARY SUPPORT TO CIVIL AUTHORITIES**

**A Case Study in Command and Control**

**GRADUATE RESEARCH PROJECT**

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## **Abstract**

Unity of Effort in Military Support to Civil Authority operations is an area of critical concern especially to the fledgling United States Northern Command. The nature and importance of command relationships between active-duty and reserve forces involved in domestic operations has been highlighted in recent planning and operations. Through the reconstruction of the Command and Control structure during the planning and execution phases of the Modular Airborne Fire Fighting System employment during the 2003 Southern California Wild Fire Fighting season, critical areas are identified and possible Command and Control structure alternatives are developed. These areas and structures are filtered through a group of subject matter experts. The results of the interviews provide key insights into the nature of the critical areas and on the relevance of the proposed Command and Control structures for the Modular Airborne Fire Fighting System (MAFFS) mission as well as other Military Support for Civil Authority (MSCA) missions. While it is determined there is no single Command and Control construct for MSCA missions, this research does provide key insights into the nature of Command and Control in MSCA operations and produced useful suggestions for improving, clarifying and streamlining the Command and Control structure for MAFFS and other MSCA missions.

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## **Chapter 1 – Introduction**

As the 2003 wildfire season drew to a close, many around the United States breathed a collective sigh of relief. The number of fires for the year was lower than anticipated and overall acreage burned was just 81% of the ten-year average (NICC, 2003). Then, in late October, massive wildfires struck several areas of the state of California. Total damage would be severe. Over 673,000 acres burned, more than 4700 structures destroyed and 22 lives lost, including one fire fighter (CDF, 2003).

During the course of the fire fighting efforts, local and state resources were quickly overwhelmed. The National Interagency Fire Center (NIFC) requested help from the Department of Defense. DOD responded with six Air Force Modular Airborne Fire Fighting System (MAFFS) equipped C-130 aircraft as well as 6 Marine CH-53 helicopters and one battalion of 500 firefighters. The aircraft would fly 70 sorties and disperse 195,800 gallons of retardant and water. Their efforts “proved to be invaluable to the fire fighting effort” stated Lt Col Roberto Garza, spokesman for United States Northern Command (USNORTHCOM, 2003a).

The Joint Task Force (JTF) stood up by U.S. Northern Command to support the California wild fire fighting efforts included 6 different operational units, three from the Air National Guard, and one each from the Air Force Reserve, the Marine Active Duty, and the Naval Reserve. Command and Control (C<sup>2</sup>) of these disparate forces presented a unique challenge. Unity of Command is a principle of war (JCS, 2001) and is desirable for all military operations. However, this unity can be elusive in domestic operations involving forces from both active and reserve components. That elusiveness is the subject of this research.

Military Support to Civil Authorities (MSCA) is one of United States Northern Command core mission categories (USNORTHCOM, 2003b). Air assets play a key role in



USNORTHCOM's MSCA missions, especially in the wildland fire fighting mission. Given the myriad of forces presented in the wildland fire fighting (WFF) mission, how can USNORTHCOM achieve Unity of Effort? Through a case study analysis of the 2003 MAFFS employment in Southern California, this research will answer the generalized question: *How can United States Northern Command achieve Unity of Effort when providing Total Force air support to MSCA?*

This research will proceed in a normative, holistic single case study methodology, analyzing the planning and execution of the recent MAFFS deployment for the 2003 California wildfires. After providing some essential background material in Chapter 2 and explaining the specific methodology in Chapter 3, Chapter 4 lays out the analysis of the planning, execution and validity stages of the research. Chapter 5 contains the research results and provides an answer to the primary research question.

Why engage in this research? First, the MAFFS is a key part of the National Fire Plan, the interagency agreement between federal, state and local governments, tribes and other interested parties to protect communities and natural resources. Since 1973, MAFFS units performed over 6,900 live fire airdrops, making a substantial contribution to the preservation of our country's wildland areas. But the mission is not without danger. In 2000, an Air Force Reserve C-130E experienced a dual-engine flame out after passing through a fire plume while at drop altitude. The exercise of exceptional airmanship by the crew resulted in the safe recovery the plane. After the incident many changes were made to the execution of the MAFFS mission. The incident serves to illustrate the importance of Unity of Command/Effort. It is imperative for USNORTHCOM to effectively, efficiently, and safely employ MAFFS in the future.

Second, the development of a C<sup>2</sup> template for MAFFS/WFF mission is potentially generalizable to other missions within the USNORTHCOM area of responsibility. Whether it is counter-drug efforts, hurricane hunter support to the National Weather Service, or aerial spray missions, proper C<sup>2</sup> relationships will be essential for effective mission accomplishment.

MSCA in general and MAFFS in particular are extremely complicated topics. As such it is necessary to narrowly focus the research to make ensure the results are timely and applicable. With this in mind there are several aspects of the MAFFS mission that will not be addressed I this research. Whether operational missions of federal interest should be performed by National Guard units in Title 32 status is a controversial topic and will not be broached. The issue of when MAFFS are federalized and who pays for their use is also a politically sensitive topic and will not be investigated.

## **Chapter 2 – Background Information**

Three primary areas must be explored before conducting a proper case study of the MAFFS mission. First it is important to develop a sense of how the MAFFS mission fits into Military Support to Civil Authorities. Second, definitional and doctrinal perspectives on command and control and its relationship to Unity of Effort and proper command authorities need to be explored. Third, the principles guiding the development of C<sup>2</sup> structure in Air Force and Joint operations will be covered. Each of these areas is addressed in turn with a review of appropriate literature and its relevance to Air Reserve Component (ARC) operations. Additionally a synthesis of C<sup>2</sup> principles will be developed to provide a framework for analyzing Unity of Effort in MSCA missions. After covering these three areas, an overview of previous efforts and current methods to achieve Unity of Effort is presented.

### **MSCA and MAFFS**

To lay the foundation of C<sup>2</sup> of the MSCA/MAFFS mission we need to define the mission, layout who owns what parts of the mission, and review the relevant government and Department of Defense (DOD) guidance.

#### **What is the mission?**

There are two ways to conceptualize military operations in support of civil authorities. One is along the spectrum of conflict. Military operations occur along this spectrum spanning from large scale combat operations to humanitarian relief efforts (JCS, 2001b: I-2). This spectrum is illustrated in Figure II-1. Operations that support US civil authorities are non-combat, thus a form of Military Operations Other Than War (MOOTW), and lie at the low end of the spectrum. One can conceptualize MSCA as a domestic form of MOOTW, sometimes termed Domestic Support Operations (DSO).

Alternatively, one can view MSCA within the context of Homeland Security (HLS). The military supports the national homeland security strategy through three distinct but interrelated mission areas – Homeland Defense, Civil Support (CS), and Emergency Preparedness (President, 2002:13). Joint Publication 3-26, Draft, Joint Doctrine for Civil Support, breaks civil support

RANGE OF MILITARY OPERATIONS			
Military Operations		General US Goal	Examples
COMBAT	War	Fight & Win	Large-scale Combat Operations: Attack / Defend / Blockades
	NONCOMBAT Military Operations Other Than War	Deter War & Resolve Conflict	Peace Enforcement / Noncombatant Evacuation Operations (NEO) Strikes / Raids / Show of Force Counterterrorism / Peacekeeping Counterinsurgency
		Promote Peace & Support US Civil Authorities	Antiterrorism / Disaster Relief Peacebuilding Nation Assistance Domestic Support Counterdrug / NEO

**Figure II-1 Range of Military Operations 1**

into three types of operations: Military Assistance for Civil Disturbances, Military Support to Civil Authorities, and Military Support for Civil Law Enforcement Agencies (JCS, 2003: IV-2). MSCA is defined as “support for natural or manmade disasters and chemical, biological, radiological, nuclear and high-yield explosive consequence management” (JCS, 2003: IV-2). Figure II-2 depicts the various MSCA sub-missions and examples.



**Figure II-2 Military Support to Civil Authorities**

Perusing other joint doctrine, however, it is noticeable that there is confusion in the taxonomy of MSCA. A review article in *A Common Perspective*, a Joint Doctrine newsletter, highlighted this confusion.

If MSCA = MACA + ( MSCLEA + MACDIS ), and DSO = MSCA = MSCLEA, and CS = MACA = MSCLEA + MACDIS, and MACA = MSCA + DOD assistance for civil disturbances, counter drug, sensitive support, counterterrorism, and law enforcement;; then what do we have? DSO = CS + MSCA??? Or, do we really have #@\* confusion? (Wasson, 2003: 10)

The Air Force has no doctrinal level publication on MSCA. It has, however, recently published Air Force Policy Document (AFPD) 10-8, Homeland Security. This policy is implemented in Air Force Instruction (AFI) 10-802, which deals directly with MSCA. AFPD 10-8 provides an additional taxonomy for HLS missions (threats to national security, domestic incident management and National Security Special Event). MSCA would fall under domestic incident management. Most of the discussion in these publications however reflects the Joint perspective. The MAFFS missions can be classified as MOOTW on the spectrum of conflict, as civil support under homeland security, or as domestic incident management. For the purposes

of this research the classification from the draft version of JP 3-26 will be followed, viewing MAFFS as a form Civil Support, while utilizing insights gained from MOOTW.

### **Who owns the mission?**

Traditionally MSCA fell under the purview of the United States Army. Given the majority of assets provided under the auspices of MSCA were Army forces, the Army was designated the DOD Executive Agent for the broad range of activities under the Civil Support mission (DOD, 1993:4). Request for assistance from other federal agencies were funneled through the Director of Military Support (DOMS) office, under G-3, for approval by the Secretary of Defense. However in light of the terrorist attacks of 9/11, the re-organization of the unified command structure, and the stand-up of USNORTHCOM, the DOMS office was moved to the Joint Staff under J-3, Operations. Deputy Secretary of Defense Paul Wolfowitz signed a memorandum dated 25 March, 2003, renaming DOMS the Joint Director of Military Support (JDOMS) and designating the new Assistant Secretary of Defense for Homeland Security the DOD Executive Agent for all matters related to HLS (DepSecDef, 2003).

United States Northern Command, in accordance with U.S. law and the Unified Command Plan (UCP) has specific responsibility for homeland defense and assisting civil authorities. USNORTHCOM's area of responsibility (AOR) covers the continent of North America to include Alaska (President, 2002). However USNORTHCOM has no assigned assets so it relies on the transfer of forces from other combatant commands for mission accomplishment. The Commander Air Force Forces (COMAFFOR) and Joint Forces Air Component Commander (JFACC) for USNORTHCOM is the Air Combat Command (ACC) Commander (CC). ACC/CC has delegated his JFACC function to First Air Force, headquartered at Tyndall AFB, FL.

United State Pacific Command (USPACOM) also has responsibilities for providing military assistance to civil authorities within its AOR. USPACOM's general geographic AOR includes most of the Pacific Ocean, Hawaii and U.S. territories therein. USPACOM has assigned forces stationed in Alaska and California.

The four units that provide MAFFS capability reside in the ARC, three in the Air National Guard (ANG) and one in the Air Force Reserve (AFR). They are listed here:

- 145th Airlift Wing (ANG), Charlotte, NC
- 146th Airlift Wing (ANG), Channel Islands, CA
- 153rd Airlift Wing (ANG), Cheyenne, WY
- 302nd Airlift Wing (AFR), Peterson AFB, CO

They are all Air Mobility Command (AMC) gained units and fall under USTRANSCOM when federalized or activated. Each wing has two MAFFS units. One might wonder why the eight units are scattered among four units. Each plane that executes the MAFFS mission acquires a buildup of the fire retardant chemicals and requires extensive cleanup at the end of the season. Generally, each wing identifies two primaries and one backup aircraft for MAFFS for the duration of the season. The retardant build renders these planes unavailable for other mission tasking (Still, 2000: 9).

To summarize, USNORTHCOM and USPACOM both have CS responsibilities, but no assets for the MAFFS mission. USTRANSCOM gains MAFFS units when mobilized. JDOMS is the coordinator for MSCA/MAFFS on the Joint Staff.

### **What guides the mission?**

Two principal areas of governmental guidance influence MSCA operations in general and the MAFFS mission specifically: executive and legislative. This section covers both areas concurrently as important federal guidance applicable to C<sup>2</sup> of MSCA and MAFFS are laid out.

The MAFFS mission is a form of disaster assistance. Within the Federal Government the Department of Homeland Security (DHS) is responsible for domestic disaster preparedness, training, and coordination of government disaster response. Within DHS the Directorate of Emergency Planning and Response (EP&R) carries out these functions. Until recently this responsibility resided with the Federal Emergency Management Agency (FEMA) but was assumed by the DHS after the passage of the Homeland Security Act of 2002 by the U.S. Congress and the issuance of Executive Order 13286 by the President of the United States.

One of the primary responsibilities in domestic disaster preparedness is the coordination of federal and state response plans. While EP&R holds overall responsibility for this coordination, the Robert T. Stafford Disaster Relief and Emergency Assistance Act charges FEMA with the implementation of the Federal Response Plan (FRP) to carry out that coordination. The FRP employs a functional approach that groups under 12 Emergency Response Functions (ESF) the types of direct Federal assistance a state is likely to need. Of particular interest to this research is ESF #4 – Firefighting. ESF #4 is defined in the FRP as:

Firefighting detects and suppresses wildland, rural, and urban fires resulting from, or occurring coincidentally with, a major disaster or emergency requiring Federal response assistance. (FEMA, 2003: ESF #4-3)

The Department of Agriculture, home of the United States Forest Service (USFS), is designated as the lead agency, with five other agencies, to include the Department of Defense, providing support, with the exception of operations in Alaska, where the Department of Interior, Bureau of Land Management, is the lead agency. ESF #4 charges the DOD with the responsibility for firefighting activities on U.S. military installations and for supporting firefighting operations on nonmilitary lands under the terms of existing interagency agreements. These agreements will be discussed more fully below (FEMA, 2003: ESF #4-6).



ESF #4 establishes National Interagency Coordination Center as the focal point for national support for wildfire fighting efforts. The NICC is located at the National Interagency Fire Center in Boise, ID, and is home to seven federal and state agencies. The NIFC is responsible for maintaining the Interagency National Mobilization Guide. This guide delineates the processes and procedures to be followed in responding to a major disaster or emergency under the FRP. It briefly addresses the MAFFS, but is mostly concerned with requesting procedures and support requirements (NIFC, 2003a).

NIFC also publishes a Military Use Handbook. The intent of this handbook is to provide federal agencies guidance on how to augment their firefighting efforts with military battalions. While the emphasis is on ground troops, one chapter does deal with aviation assets (NIFC, 2002).

The Department of Defense also provides policy that is applicable to the MAFFS mission. This policy is laid out in the following publications: Department of Defense Handbook 1215.15, *The Reserve Components of the United States Armed Forces*; Department of Defense Directive (DODD) 1235.10, *Activation Mobilization and Demobilization of the Ready Reserve*; DODD 3025.1, *Military Support to Civil Authority*; and Department of Defense Manual, 3025.1, *Manual for Civil Emergencies*. All four publications make the same basic points relevant to C<sup>2</sup> of MAFFS. First military forces involved in MSCA will remain under the command and control of the DOD Executive Agent at all times (technically, this is incorrect. The chain of command runs from the Secretary of Defense (SecDef) to the Unified Commander. JDOMS exercises oversight as the SecDef's Executive Agent, but has no formal command authority over mission accomplishment) (SecDef, 1993:7). Second, volunteerism should be the primary means of access to RC forces for domestic emergencies (Sec Def, 1996:75). Third, national guard forces

provide the first line of response within their state. Such forces on state active duty (SAD) remain under the control of the Governor (SecDef, 1994:94).

There are some additional constraints placed on DOD MSCA missions by statutory guidance. Sec 12304(c) of Title 10 prohibits the in-voluntary activation of reserve forces under the Presidential Selective Reserve Call-Up (PSRC) for serious natural or manmade disaster, accident, or catastrophe. This limits the use of reserve component (RC) forces in mobilized status for MSCA missions to volunteers. The Economy Act, Sec 1535-36 of Title 31, governs the ability of federal agencies to contract with other government agencies for good or services. Sec 1535(d) limits inter-agency contracting unless commercial enterprise is not as convenient or cheap. USFS implements this by not requesting the use of MAFFS until all “contract airtankers are committed or not readily available” (NICC, 2003:52).

### **Command and Control and Unity of Effort**

*Command is central to all military action,  
and Unity of Command is central to Unity of Effort.*  
(Joint Publication 0-2)

The central focus of this research is Unity of Effort in MSCA missions. In this section, the rational basis for the importance of C<sup>2</sup> and Unity of Effort, applicable governmental and military guidance as well as historical and contemporary studies on the subject of C<sup>2</sup> and Unity of Effort are reviewed. Joint doctrine is the primary focus. Air Force doctrine is addressed when it provides particular insight into air operations. Additionally consideration is given to the various command authorities relevant to MSCA missions. Finally, barriers to Unity of Effort in operations involving ARC forces are discussed.

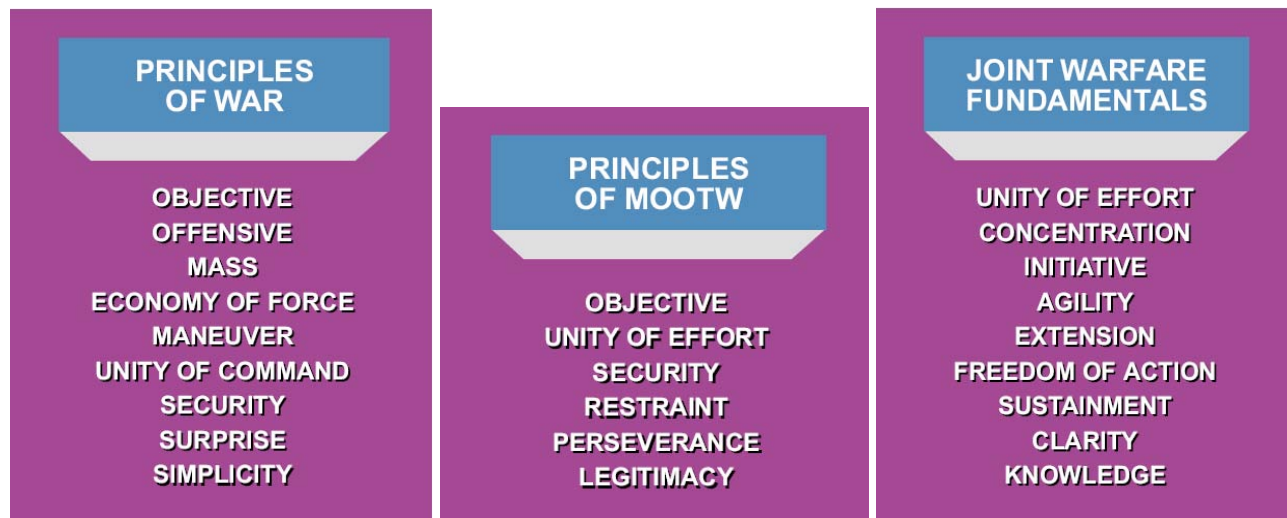
Before beginning this discussion, one observation needs to be made. It does not take much perusal of Joint and Air Force doctrine to realize there is an abundance of information on the issue of command and control. This might cause one to wonder if all guidance is consistent.

Indeed the DOD is one of the largest bureaucracies in the world. This very issue was the motivating factor for a study undertaken by Joint Warfighting Center (JWC). The conclusions reached by that study provide confidence that current doctrine provides coherent guidance upon which to base our investigation. “Joint doctrine on basic command relationships and their application is very complete and included in nearly every publication” (JWC, 1999).

### **Principles of War and Military Operations Other Than War**

Military doctrine presents “fundamental principles that guide the employment military forces. It provides the distilled insights and wisdom gained from experience in warfare and other operations” (JCS, 2003). Doctrine provides accessible and relevant principles that military forces prepare for action. In the words of Col Richard Swain, USA, “Armies need doctrine. As large hierarchical organizations, they require some common idea about what they are doing to achieve a modicum of efficiency under the stresses of fog and war” (Swain, 1990:80). Joint doctrine enables joint military operations (those involving more than one military service). This is accomplished through the promotion of “a common perspective from which to plan, train, and conduct military operations” (JCS, 2003). One way in which this common perspective is manifested is via collections of principles that guide military action. The US Army first provided such a list of nine principles of war to its soldiers in 1921. In modern joint doctrine, these nine principles are essentially unchanged, although our current enumeration did not reach its final form until 1949 (Alger, 1975). Joint Publication 1 also lists principles for military operations other than war (MOOTW) and of joint warfare fundamentals, as depicted in Figure 2-1. This division of principles by mission area (war versus MOOTW) has been criticized, (Glenn, 1998:48) but is accepted as status quo for the purpose of this research. A common theme in the lists is command and control. Under the auspices of Unity of Command in the

principles of war and Unity of Effort in MOOTW and Joint Warfare Fundamentals, aspects of C<sup>2</sup> are seen as key to joint military operations. But what exactly is meant by C<sup>2</sup>, Unity of Command and Unity of Effort?



**Figure II-3 Principles and Fundamentals of Joint Warfare**

The phase Command and Control did not come into common use until after WW II. From the time of Alexander, the word command covered everything. Explanations for the emergence of the new phrase are numerous. Some contend that as armies grew in size, delegation of authority to subordinate commanders prompted new language. Command, retained at the highest levels, was strategic, while control was delegated, tactical. Others argue that the automation of some functions during WW II demanded new terminology. It did not make sense to say one commanded a radar system. One commands people, but controls things. Another suggestion is that the increased reliance on “things” in war led to the emergence of the term control. A final theory envisions the desire to have safeguards or controls on atomic and nuclear weapons as the motivation for the new term (Coakley, 1992:35).

Analogous to the different explanations for the origin of the phrase, C<sup>2</sup>, are the differing interpretations the services hold. The Army views control as primarily an organizational issue.

Does a commander have a form of control over a given force? In the Air Force, it is a matter of application of command. The radar controller may be telling the pilot what to do, but that is definitely not viewed as an instance of command. The Navy takes a more negative view, seeing control as a constraint, as a loss in the autonomy of a ship's captain (Coakley, 1992:37).

Others hold a variety of views on command and control. For some command is qualitative, a human leadership quality, while control is quantitative, a decision-making process (Bolger, 1990:69). Others see a push-pull dichotomy. Command sends forces out, control pulls them back (Coakley, 1992:38). Some see command as a function, something to be done (Snyder, 1993:11 and Van Creveld, 1985:5) and control as a process, "a dynamic closed loop process" (Herres, 1987:414) or a "process of resource allocation by a knowledgeable, recognized point of authority to accomplish a given objective" (Conley, 1982: 16).

Even the history of the terms Unity of Command and Unity of Effort is confusing. The original term for the concept of Unity of Command in the US Army's 1921 list was cooperation. Unity of Effort, with Unity of Command and cooperation as supporting concepts, first appeared as a principle of war in the 1939 version of Army Field Manual 100-5 Operations. The term Unity of Command replaced Unity of Effort as a principle of war in the 1949 version of FM 100-5, although the definitions remained the same (Glenn, 1998:48).

Unity of Command is typically viewed as the "unified command structure in which a single commander controls all forces assigned to a theater for operations...A unified command structure permits combat power to be effectively directed toward an object and redirected in response to contingency requirements" (Cardwell, 1984). It is the key enabler for a commander to be able to execute the functions and processes of command and control. But for a variety of reasons it is not always possible to place all forces under the same commander (as will be seen,

this is the case in the MAFFS mission). Given this limitation, the concept of Unity of Effort directs a commander to ensure everyone within his sphere of influence is focused on the same objectives, even if they are not in his/her chain of command.

There are other ways to view Unity of Effort. As a strategic concept operating at the highest governmental levels, it refers to cooperation between government agencies in the pursuit of America's national interests. In MOOTW it is significantly different. The first listing of the principles of MOOTW was published in the 1993 version of Army Field Manual 100-5, *Operations*. Unity of Effort was listed as one of those principles. In this context the principle is a recognition of the need to integrate the efforts of interagency and non-governmental organizations as well as other foreign governmental entities in MOOTW situations.

Given the variety of perspectives on C<sup>2</sup>, Unity of Command and Unity of Effort, it is important to provide definitions that are relevant to this research. Fortunately joint doctrine does this, at least somewhat.

### **Definitions of Key Terms**

The Secretary of Defense has directed the standardization of military and associated terminology (SecDef, 1989). This standardization is encoded in the Department of Defense Dictionary of Military and Associated Terms. Definitions of command and control therein provide a common reference frame from which to build the command concepts critical to this study. Unity of Command and Unity of Effort are, curiously, absent from the dictionary. Command is defined as:

The authority that a commander in the Armed Forces lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare, morale, and discipline of assigned personnel. (JCS, 2003)

Control is defined as:

Authority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations. (JCS, 2003)

So control is essentially a subset of command. Interestingly, these definitions are commensurate with Coakley's description of the Air Force view of C<sup>2</sup>. This brings us to Command and Control.

C<sup>2</sup> is defined as:

The exercise of authority and direction by a properly designated command over assigned and attached forces in the accomplishment of the mission. Command and Control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. (JCS, 2003)

From this definition one observes that C<sup>2</sup> is a noun and a verb, a function and a process (Coakley, 1992:17). The functions of C<sup>2</sup> include arrangement of personnel, i.e. organizational structure.

For guidance on Unity of Command and Unity of Effort we turn to Joint Publication 1.

Under the principles of war, Unity of Command is discussed in this manner:

- a. The purpose of Unity of Command is to ensure Unity of Effort under one responsible commander for every objective.
- b. All forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose... In multinational and interagency operations, Unity of Command may not be possible, but the requirement for Unity of Effort becomes paramount. (JCS, 2002: B-2)

Unity of Command intends for the authority exercised through command and control to be invested in a single person, with "clear delineation of responsibility among commanders up, down, and laterally" (JCS, 2001: III-1). For many military operations, in war and otherwise, this is not always possible. When this is the case, the focus becomes Unity of Effort.

Unity of Effort is a principle of MOOTW and a fundamental of joint warfare. Under MOOTW Unity of Effort is discussed in this manner:

- a. Seek Unity of Effort in every operation.
  - b. Ensure that all means dedicated to the MOOTW are directed to a common purpose.
  - c. Define command arrangements for military and nonmilitary participants.
- (JCS, 2002: C-1)

As a fundamental of joint warfare JP 1 mentions “The fundamental of Unity of Effort demands that all undertakings be directed toward achievement of common aims” (JCS, 2002: III-9). However the discussion focuses on the national and strategic level and is associated with unified action, a topic not directly applicable to this research.

Given the differing interpretations of various key terms, here is the model that will be used in this paper. Unity of Effort is the over-arching goal of any military activity. Commanders seek to direct or influence all parties involved in an operation toward the same objectives. This unity can be accomplished through direct or indirect means. Direct means are the exercise of command relationships over forces assigned to him, Unity of Command. Indirect means are coordination, cooperation and influence.

This research will look at the direct and indirect means of C<sup>2</sup> from a functional perspective, specifically, organizational structure and the impact it has on mission accomplishment. It will address the barriers to Unity of Command in the MAFFS mission and how Unity of Effort is cultivated in its place.

### **Command Authorities**

What types of authority does a commander have to accomplish his/her mission, either through direct or indirect means? Doctrine describes the types of command relationships. These are Combatant Command (COCOM), Operational Control (OPCON), Tactical Control (TACON) and support. Additionally there are other types of authority, to include: coordinating authority, Administrative Control (ADCON), and direct liaison authorized. Those authorities



relevant to command structure in employment of MAFFS in MSCA missions are COCOM, OPCON, TACON, ADCON and coordinating authority.

Before detailing these authorities, the question must be asked: Is there any higher guidance, perhaps, (Presidential direction or congressional legislation) on the issue of command authority. The Unified Command Plan satisfies the requirement for the President of the United States to establish unified and specified combatant commands (USC 10, Sec 161(a) (1), 2002). In this document the President directs the Secretary of Defense to use the Memorandum of Forces for Unified Commands to assign forces to the various combatant commands for peacetime. In the memo the Secretary of Defense directs “the definitive reference for command relationships is Joint Publication 0-2, Unified Action Armed Forces” (SecDef, 2003). While command relationships are addressed in the memo, the discussion is essentially reproduced from JP 0-2, which will be discussed below.

Beyond the requirement for the President to establish the joint command structure, there is little guidance in congressional legislation on the definition of command. The exception is found in United States Code Title 10, the legal authority governing the operation of the United States military. Section 164(c) of Title 10 addresses command authority. It explicitly defines the authority given to combatant commanders to command forces. This authority includes:

- (A) giving authoritative direction to subordinate commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations...
- (B) prescribing the chain of command to the commands and forces within the command...
- (D) employing forces within that command as he considers necessary to carry out missions assigned to the command (USC 10, 164(c), 2002)

This authority is termed *combatant command* within military doctrine (JCS, 2001, III-5) and is the highest level of military authority for the employment of forces. This authority is invested in

the Unified Combatant Commanders. They exercise this authority over the forces assigned to them in the Forces For memorandum discussed above. It can only be transferred at the direction of the President or Secretary of Defense.

Title 10 also addresses responsibilities for administration and support. The various service secretaries and their chiefs are charged with responsibility for the affairs of their Department. For example, the Secretary of the Air Force is responsible for, among others, “the following functions: ...organizing, supplying, equipping, training...administering” (10 USC, Sec. 8013, 2002). The authority to fulfill these administrative and support responsibilities is called *administrative control* or ADCON.

Title 10 goes no further in delineating command and control authorities; neither does DOD guidance. This leads to military doctrine, and an examination of Joint Publication 0-2, Unified Action Armed Forces, to further delineate command authorities. Joint Doctrine defines two lower levels of command authority underneath COCOM. These are OPCON and TACON.

*Operational control* or OPCON is inherent in COCOM and is defined as:

the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission...OPCON normally provides full authority to organize commands and forces and employ those forces as the commander considers necessary to accomplish assigned missions. (JCS, 2001, III-7)

OPCON allows a commander to prescribe the chain of command and employ forces within his/her command. It can be delegated by the combatant commander, but can be transferred to another combatant commander only with approval from the Secretary of Defense. One key limitation: OPCON does not “include authoritative direction for ...matters of administration, discipline” (JCS, 2001: III-7). Disciplinary authority resides with the ADCON authority,

typically the command chain holding COCOM. Thus when OPCON is transferred disciplinary authority is not unless specifically delegated.

*Tactical Control* or TACON is inherent in OPCON and is defined as:

the command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish the assigned missions or tasks. (JCS, 2001: III-8)

TACON may be delegated to any echelon below the level of COCOM, but may only be transferred by the Secretary of Defense. It does not provide organizational authority. For Air Force assets TACON typically involves the dispatch of one or more aircraft to accomplish a specific task.

*Administrative Control* or ADCON is defined as:

the direction or exercise of authority over subordinate or other organizations with respect to administration and support, including...mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. (JCS, 2001: III-11)

ADCON is synonymous with the Title 10 administrative and support responsibilities given to the Services as discussed above. Certain aspects of ADCON may be delegated through the use of Specified ADCON. However for ARC forces, ADCON typically remains with the parent unit in cases of less than full mobilization (DAF, 2003a: 84).

To summarize, COCOM, OPCON and TACON are all direct means of achieving Unity of Effort, formally termed Unity of Command. These authorities draw a clear black line between various echelons of command.

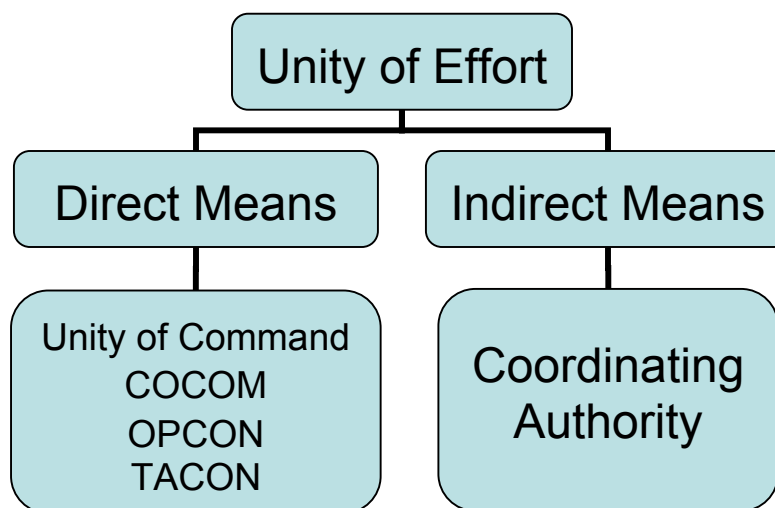
*Coordinating Authority* is a form of authority aimed at cultivating Unity of Effort in the absence of Unity of Command or the absence of clear black lines of authority. It is defined as:

the authority delegated to a commander or individual for coordinating specific functions and activities involving...two or more forces of the same Service.

...may be granted and modified through a memorandum of agreement to provide Unity of Command and Unity of Effort for operations involving National Guard, Reserve Component, and Active Component forces. (JCS, 2001: III-12)

It is *not* a form of command authority. Coordinating authority is “a consultation relationship between commanders, not an authority by which command may be exercised” (JCS, 2001: III-12). It is generally viewed as a planning tool. It empowers commanders to consult, advise, and otherwise coordinate with forces outside their chain of command. This is useful during the deliberate planning process when forces may lie in multiple chains of command. An alternate application of coordinating authority is through a memorandum of agreement or understanding (MOA/MOU) to achieve Unity of Effort between National Guard forces in other than active duty (AD) status. This is particularly relevant to MSCA missions since they typically involve forces from both ARC and AD components of the Air Force, operating in a variety of duty statuses. The MOU provides a means for a commander to give direction to Guard and Reserve forces in non-mobilized status with consent of the respective governor or combatant commander. The use of coordinating authority is an indirect means of achieving Unity of Effort.

To tie this into the previous discussion about achieving Unity of Effort it is helpful to



**Figure II-4 Classification of Unity of Effort Authorities**

display the various authorities in a simple chart, Figure II-4. COCOM, OPCON, and TACON are command authorities exercised over assigned or attached forces within a Unified Commander's AOR. These authorities are direct means for a commander to achieve Unity of Effort. Coordinating Authority is an indirect means, using coordination to ensure all parties falling outside his direct control are working toward the same objectives.

### **Command and Control of Air Reserve Component Forces**

Unity of Command of military forces is, in principle, the agreed upon ideal for all operations. However, this is an elusive goal. Particularly in training and operations involving members of the ARC, Unity of Command may not be *legally* possible. To understand why it is necessary to look closer at how the ARC is constituted. ARC members normally hold one of three types of position and can operate in a variety of different duty statuses. These duty statuses affect who can hold command authority over them.

#### *ARC positions and duty statuses*

*Air National Guard:* National Guard forces come in three different flavors: traditional guardsman, active guard reserve (AGR), and military technician (MilTech). A traditional guardsman is the weekend warrior. He participates in drill once a month and in an annual summer camp and is normally in Title 32 status. An AGR is a full-time guardsman, assigned to his respective unit, paid through Title 32 (ANG, 2002). A MilTech is a federal civilian employee under Title 32. The MilTechs fall under a separate civilian supervisory chain. Since that chain falls under Title 32 this separate chain is irrelevant to the present research. Guardsmen can operate under three different legal statuses: State Active Duty (SAD), Title 32 and Title 10 (ANGI 36-2001, 1997: 1-6). SAD is a state status fully controlled and funded by the state government. COCOM or its state equivalent resides with state authorities. This status

is used to carry out missions assigned and paid for by the state. Title 32 is a state controlled, but federally funded status, used primarily for the accomplishment of training necessary to maintain wartime readiness. A guardsman may be either Full-Time National Guard Duty (FTNGD) or Inactive Duty for Training (IDT), while in Title 32 status dependent upon the position he occupies and the type of training he is performing. COCOM is retained by the state. For the ANG, Title 10 is active duty status for either training (ADT) or other than training (ADOT). While in Title 10 status, COCOM of RC (including ANG) units and members transfers to the gaining major command (JCS, 2001b: III-12).

*Air Force Reserve:* Reservists come in one of three flavors roughly mirroring the Air National Guard: traditional reservist, active guard reserve (AGR) and air reserve technicians (ARTs). Traditional reservists, similar to traditional guardsmen, are weekend warriors in inactive Title 10 status. AGRs are full-time reserve employees on active duty (DOD, 2000). ARTs are civilian employees under Title 5 who also occupy a traditional reserve billet (DAF, 1994). Reserve forces can operate in one of two different legal statuses: Title 5 or Title 10. Title 5 is congressional legislation that governs civil employees of the federal government. The traditional concept of command authority does not apply to individuals in Title 5 status (DAF, 1994). Their hierarchy is independent of military chains of command, although it can be coincident with them. Reservists can be in Title 10 status as ADT, ADOT, or IDT (DODD, 1997). Which status depends upon the type of training or mission they are performing. In all cases COCOM resides with the Air Force Reserve Command, with the exception of activation or mobilization, as discussed below (JCS, 2001b: III-12).

		Title 10		Title 32	Title 5
		Active Duty	Inactive Duty		
Air National Guard	Traditional Guardsman	X		X	
	Active Guard Reserve	X		X	
	Military Technician	X		X	
Air Force Reserve	Traditional Reservist	X	X		
	Active Guard Reserve	X	X		
	Air Reserve Technician	X	X		X

**Table II-1 Summary of ARC positions and duty statuses**

*Access to ARC forces*

The ability to access the ARC at various levels is critical to our nation's ability to scale its response in a given operation or contingency. This access is gained in one of four ways cleared defined in Title 10: Volunteerism, Presidential Selective Reserve Call-Up, Partial Mobilization and Full Mobilization (DODD, 1995). Partial and full mobilization is used to bring large numbers of forces onto active duty during a Congressional declaration of war or national emergency or a Presidential declaration of national emergency. Given the numbers involved, this type of mobilization is highly unlikely to be used for a MSCA mission. For smaller, temporary needs, access to ARC augmentation to the active duty is obtained through the exercise of one of the remaining two methods, volunteerism or PRSC, collectively termed activation.

*Volunteerism:* Title 10 Section 12301(d) of the United States Code provides the Secretary of Defense with the authority to order a reserve component member to active duty with the consent of the member. For guardsmen, the consent of the governor must also be obtained. This is an individual call-up and is not used to activate assets. For AMC-gained assets,

volunteers are obtained through an “ask-not-task” process (Goodwin, 2004). The Tanker Airlift Control Center (TACC), the execution arm of AMC, goes to the NGB and AFRC to ask for volunteers for a particular mission. The NGB and AFRC contact units with the appropriate assets. The units solicit volunteers and obtain consent from the governor in accordance with federal law. Units are provided additional hours (called man-days) to fund the individual’s duty, which is paid for by the major command initiating the request. The unit then cuts Title 10 orders and OPCON transfers to the requesting unit (DAF, 1994).

*PRSC:* Title 10 Section 12304(a) allows the President to authorize the Secretary of Defense to order up to 200,000 of various reserve components to involuntary active duty for up to 270 days. However this call-up is limited by the restriction, previously discussed, with regard to providing assistance to Federal or State governments during responses to serious natural or manmade disasters, accidents or catastrophes. This limitation would apply to MAFFS as well as most MSCA missions. PRC is used to call-up units (with their attendant equipment) and members.

When the ARC is accessed through volunteerism or PRC, the command requesting the augmentation provides funding through the use of Military Personnel Appropriation (MPA) man-days (DAF, 1994). This is necessary because ARC units may not have the allocated monies to fund their members’ activities beyond their forecasted training. For ANG forces, once activated, ADCON is transferred to the 201st Mission Support Squadron and OPCON of the members or units is transferred from the gaining command to the requesting command. For reserve forces, after activation, ADCON remains with AFRC, but OPCON is transferred to the requesting command.

*Drawing the black lines*



The typical method of accessing ARC forces for MSCA is through a combination of volunteers and limited PRC. By definition these forces are in Title 10 status; hence command flows in direct channels and the black lines of authority are easily defined. However in an increasing number of instances, it is desirable to leave the ARC in non-activated/non-mobilized status. Reasons for not activating include financial considerations (who pays the bill), political pressures, and member flexibility (for ARC members to manage their duty statuses, training and schedule). This introduces the possibility of forces in a mixture of statuses participating in MSCA operations and introduces uncertainty about the lines of command. For the guard this involves legal issues about who can command who in Title 32 versus Title 10 status. For the reserves the issue concerns who commands civilians and whether OPCON can be transferred for someone still on IDT status.

Title 32 specifically states and DOD policy reiterates that active federal military forces remain under the C<sup>2</sup> of Title 10 officers at all times and can not be placed under the authority of a Title 32 officer (DOD, 1995). The converse is true as well. When an ANG member is activated or mobilized, he/she is relieved of duty as a member of the ANG (USC 32, Sec 325(a), 2003). Thus an ANG/CC in Title 10 status they may not hold command over SAD or Title 32 assets. These restrictions are based on the supremacy clause of the Constitution, which states that powers delegated to the Federal government take precedence over state laws, and the Tenth Amendment, which grants powers not specifically given to the Federal government to the states.

For the reserves, since most members, except ARTs, are in Title 10 status is possible for AD officers to hold command over Reserve units. However this can only be done with the permission of HQ USAF/RE (DAF, 2000:7). Whether OPCON can be transferred for those individuals in IDT status is unclear. However Joint Doctrine does stipulate that Unified

Commanders will exercise OPCON over RC forces in ADT or IDT within their AOR. (The exception is for units in CONUS, Hawaii, Alaska, Puerto Rico and the U.S. territories) (JCS, 2001b:III-12). Since Unified Commanders can hold OPCON of IDT RC forces it is reasonable to assume that at the direction of the Secretary of Defense, OPCON of ARC would be transferred from AFRC to USNORTHCOM. The issue of command over ARTs is more complicated. However since ARTs are civilians and the legal and doctrinal ideas of command do not apply to them, it is not reasonable to speak of transferring OPCON of ARC forces in Title 5 status.

The inability of AD commanders to hold command over most ARC forces is reflected in the manner AMC manages ARC assets. AMCI 10-202, Vol. 2, clearly states “AMC does not have OPCON over non-federalized/non-mobilized AMC-gained AFRC/ANG units.”

There is one caveat. A recent change to Title 32 allows for an Officer in the National Guard on active duty to retain their Guard duty status. The change was part of the 2004 Defense Authorization Act. The legislation had its origins in the innovative command structure of the 116th Air Control Wing (ACW) at Warner Robbins AFB. (DAF, 2004:26) The 116 ACW is a blended wing, a concept that grew out of the Future Total Force initiative in the 1990's. It is composed of air national guardsmen and active duty members. The commander is member of the Air National Guard. To avoid the sort of difficult command issues discussed above, the Air Force requested legislation to allow a National Guard officer on active duty to retain his duty position as a National Guardsman. Sec 516 of the 2004 National Defense Authorization Act enacted legislation changing section 325 of Title 32 allowing dual status with Presidential authorization and consent of the Governor of the applicable state. This will allow an activated National Guard commander to retain command over the forces in his non-mobilized unit, assuming the consent of the President and the Governor is obtained. This could potentially

alleviate some confusion with respect to C<sup>2</sup>, but present other challenges. Dual-status requires presidential authorization and gubernatorial consent. The dual-status commander would have two masters. If a conflict arose, whose orders would take priority? Finally, the dual-status would only cover guard forces from the commander's state. C<sup>2</sup> of out-of-state guard forces would still be problematic.

### **Principles of C<sup>2</sup> Structure**

*The primary emphasis in command relations should be to  
keep the chain of command short and simple.*

(Joint Publication 1)

With a basic understanding of C<sup>2</sup> authority and barriers to Unity of Command in operations involving RC forces in multiple duty statuses, we turn to address the issue of actual command structure. United States Northern Command has no assigned assets. They are dependent upon the transfer of forces when the need/mission arises. It is the task of the Joint Force Commander (JFC) to formalize the C<sup>2</sup> structure for the disparate forces assigned/attached. How is this done? What principles guide a Joint Force Commander when developing a C<sup>2</sup> structure?

### **Principles for Organizing Joint Command and Control**

A JFC is given the authority (COCOM or OPCON) to organize his forces as necessary for mission accomplishment. Joint Doctrine lays out a series of simple concepts guiding these organizational decisions.

Joint Publications provide a set of nine C<sup>2</sup> tenets for strengthen Unity of Effort. While all are important in the conduct of joint operations, one tenet stands out as particularly applicable to this research: *clearly defined authorities, roles and relationships*. “Effective C<sup>2</sup> of joint operations begins by establishing *Unity of Command* through the designation of a JFC with the *requisite authority* to accomplish assigned tasks using an *uncomplicated* chain of command”

(JCS, 2001: III-14). Three key ideas stand out in this statement. One is the establishment of Unity of Command. This reflects the traditional military ideal of a single commander in charge. The second identifies the need for that single commander to be invested with the proper amount of authority for carrying out the assigned mission. Third is a straight forward chain of command. The black lines tracing command channels should be easily identifiable.

Joint Doctrine also discusses six principles that guide the construction of the JFC's C<sup>2</sup> structure. The three of relevance to this research are: simplicity, span of control, and unit integrity. Simplicity is similar to the uncomplicated chain of command discussed above. Span of control relates to the desired reach the JFC has over assigned or attached forces and the capability of his/her C<sup>2</sup> system to control all forces involved. This is a function of the size of the staff, the facilities available and what the C<sup>2</sup> systems at their disposal. Unit integrity means that units should operate organically, the same way they trained.

For MOOTW, Joint Doctrine provides one additional bit of guidance. JP 3-07, Joint Doctrine for MOOTW comments:

No single C2 option works best for all MOOTW. JFCs and their subordinates should be *flexible* in modifying standard arrangements to meet specific requirements of each situation and promote Unity of Effort. (emphasis added) (JCS, 1995)

This highlights the need for commanders to use judgment in arranging their C<sup>2</sup> structure and focus on the need for Unity of Effort, not necessarily Unity of Command.

Air Force doctrine adds a couple additional considerations. One is the axiom "airmen are work for airmen." Second is the guiding role Unity of Command and centralized control and decentralized execution play in the employment of Air Force forces. These principles drive the organizational structure of deployed Air Force assets in the form of Air Expeditionary Units. However Air Force Doctrine concurs with Joint that the use of judgment is paramount

Commanders should apply sound professional judgment to tailor their organizations and operations for the task at hand and for the requirements of differing theaters. (DAF, 2000: 33)

## Synthesis of Principles

From these axioms/principles/tenets one can derive a framework of basic principles/pillars useful for evaluating C<sup>2</sup> relationships in terms of Unity of Effort. This

Joint Tenets	Joint Principles	MOOTW Principle	Air Force Axioms	Framework for Unity of Effort
Unity of Command			Unity of Command	Single Commander
Requisite Authority			Airmen work for Airmen	Proper Authority
			Centralized Control/ Decentralized Execution	
Uncomplicated Chain of Command	Simplicity			Simplicity
	Span of Control			Span of Control
	Unit Integrity			Unit Integrity
		Flexibility		Flexibility

**Table II-2 Comparison of C<sup>2</sup> Principles Regarding Unity of Effort**

framework consists of six pillars useful for analyzing the C<sup>2</sup> structure of MAFFS planning and execution. Working definitions of the six pillars are provided below:

*Single Commander* – a single commander should be appointed to command and control assets at the operational level. For the MAFFS mission this commander should be either a COMAFFOR for single-service operations, or a JTF/CC for joint operations.

*Proper Authority* – The single commander should be given the proper authority necessary to faithfully execute the mission he is given. Whether the authority is proper OPCON over Title 10 forces or Coordinating Authority over non-activated Guard forces, the commander's authority should be sufficient to accomplish the mission.

*Simplicity* – Command channels should be easily traceable from CDRUSNORTHCOM down to the individual unit members.

*Span of Control* – The total assets placed under the control of the commander should not exceed his ability to properly C<sup>2</sup> mission execution.

*Unit Integrity* – Due to the nature of the MAFFS mission, the individuals deployed from the same unit for the WFF mission should remain with that unit for the duration of their involvement.

*Flexibility* – Operational guidance should not unduly constrain the ability of the commander to accomplish his mission.

This framework provides a solid reference for evaluating MSCA C<sup>2</sup> operations, in particular the planning and execution phases of the 2003 Southern California MAFFS employment.

### **Achieving Unity of Effort**

To this point, the importance of C<sup>2</sup> and Unity of Command in joint operations, the statutory, doctrinal and regulatory guidance that pose barriers to the achievement of Unity of Command in MSCA operations involving Title 5/32 forces, and the joint principles for formulating command structure have been highlighted. So how can commanders achieve Unity of Effort in the absence of Unity of Command? This section briefly covers previous work in this area and presents several avenues for achieving Unity of Effort in the absence of Unity of Command for MSCA missions, and specifically in the employment of MAFFS.

### **Previous Work**

The issue of Unity of Effort in domestic missions has been a thorny legal and doctrinal issue for quite some time. But it was not until recently that much effort was placed upon trying to clarify the situation. The work done has laid a solid foundation for this investigation. Previous work includes a CSAF-directed investigation as well as two recent doctrine conferences.

During the accident investigation briefing for the C-130 mishap mentioned in Chapter 1, then Chief of Staff of the Air Force Ronald Fogleman inquired who was in charge of the MAFFS

deployment. The answer: no one. He subsequently established a COMAFFOR for MAFFS employment and tasked a panel to conduct research on feasible Air Expeditionary Force (AEF) constructs for all Air Force members involved in wildland fire fighting support (CSAF, 2000). A provisional team was formed to conduct an analysis of command and control structure for MAFFS. The team's report highlighted the absence of Unity of Command in the MAFFS mission (Iffland, 2000: viii). Additionally it noted that existing MOA/MOUs did not clarify the relationships between Title 10 and Title 32/5 forces. The team proposed two recommendations to improve the situation. The first recommendation was a clarification of doctrine. It resulted in the current wording of Coordinating Authority in joint and service doctrine, as previously discussed. The second recommendation was for incentives in the form of hazardous duty pay and leave benefits to individuals for volunteering in Title 10 status for WFF missions. No action was taken on this recommendation. The team's recommendations formed the core C2 concept for AMC's planning for future MAFFS seasons.

The Air Force Doctrine Center hosts a doctrine conference every year. The 2002 conference, entitled the Hap Arnold Symposium, focused on new issues arising from the events of 9/11 as well as thorny doctrinal issues (Bosker, 2002). One panel, consisting of seven general officers and 16 other members, was convened on Civil Support. They addressed the issue of Command and Control in Civil Support missions and noted the lack of Air Force doctrine. They endorsed the policy of a COMAFFOR for Civil Support operations and felt the current WFF Memorandum of Understanding between the Air Force and the States was a good model for developing command relationships for other CS missions. They also highlighted the need to identify command relationships up front in planning documents (Smith, 2002).

USNORTHCOM also investigated the issues of C<sup>2</sup> in HLS. In November of 2003, the legal arm of USNORTHCOM, J1 division, hosted a conference about National Guard legal issues (Scorsine, 2003). Two panels discussed a variety of C<sup>2</sup> issues arising from Title 32 forces participating in operational missions. The panel results highlighted several options for increasing Unity of Effort in these situations: coordinating authority (using the MAFFS model), dual commissions for National Guard commanders (since formalized in Title 32 as previously discussed), and the operationalization of Title 32 (clarifying the legality of performing operational missions while in Title 32 status).

### **Current Tools**

In the absence of Unity of Command, there is currently only one indirect mechanism available for a commander to achieve Unity of Effort when operating with Title 5/32 forces: coordinating authority. There are two means to formalize this authority: delineation in the appropriate planning and execution documents or through a memorandum of understanding. One additional method used by the states collectively to achieve mutual support is interstate compacts.

Normally coordinating authority is designed to allow for coordination in planning operations between organizations that fall under different chain of commands. It was not intended to be an operational authority. However the work of the CSAF MAFFS team resulted in a change that included a provision for the use of coordinating authority in an operational environment. Thus for the purposes of achieving Unity of Effort, coordinating authority now allows a commander to give direction and guidance to RC forces participating in his operation with a general understanding that they will comply. The commander still does not have any true command authority over these forces; just an agreement from the governor of the state the forces



are from that the unit will listen to the commander. It works like this: when the resources of a guard unit are required to be used out of state in a non-federalized status, their participation is at the discretion of the state governor. For MAFFS missions, the governors of the states involved agree, in principle, to allow the appointed COMAFFOR to direct his forces for the duration of the mission. However, all formal chain of commands still resides in the state. The case is similar for reserve forces. When not mobilized, the chain of command still remains with Air Force Reserve Command.

A memorandum of understanding (MOU) is generically used to document what two or more parties agree to do in a given situation. In civil support, the MOU can be used to formalize the use of coordinating authority for operations requiring a mixture of Title 5/10/32 forces. There are several current MOUs signed by various parties involved in the MAFFS mission.

In 1975 the Department of Defense signed a MOU with the Department of the Interior for the use of DOD resources to support WFF (DOD, 1975). It does not include any discussion of command authorities.

The Air Force signed a MOU with various states (13 to date) to, among other things, structure command relationships with National Guard forces involved in WFF (DAF, 2002). It establishes a COMAFFOR as the single director of Air Force assets in the field and grants coordinating authority over non-federalized ANG units. It specifies that an ANG officer serving as a COMAFFOR will be in Title 10 status. It further clarifies that ANG forces operate outside their state in accordance with Interstate Compacts (discussed below), by agreement between governors, or in missions consistent with training requirements. It further stipulates that the COMAFFOR will respect unit integrity and command relationships in existing ANG units. It

highlights the fact the directions provided by the COMAFFOR are only enforceable by State means.

Historically states signed interstate compacts to establish formal, legal relationships in order to address common problems or to promote a common agenda (Council of State Governments, undated). Currently there are five such compacts concerning the use of various fire fighting assets (Voit, 1998). These agreements form the basis for use of ANG units across state lines. When ANG forces deploy for MAFFS missions in Title 32 status they do so under the authority of their governor following the guidelines in the various state compacts.

### **Synthesis**

This chapter presented a survey of the legal and doctrinal basis of the WFF mission, the historical and doctrinal desirability of Unity of Command for all military forces involved in WFF, the legal issues that bar true Unity of Command, the principles for developing C<sup>2</sup> structures, previous work in this area, and the current tools available to a Joint Commander for achieving Unity of Effort. The broad theme of this chapter has been the necessity of Unity of Effort (Unity of Command preferable) in MSCA missions. In the MAFFS mission this is theoretically provided by Coordinating Authority. Does it work? In particular, did it work in the 2003 Southern California Wildfire season? Is it a model that can be generalized to other MSCA missions? Using the framework for Unity Effort and the six pillars of C<sup>2</sup> structure identified above, Chapter 4 will present an analysis of the planning and execution of the 2003 MAFFS California deployment and answer these questions.

## **Chapter 3 – Methodology**

This chapter provides a description of and a rationale for the methodology that was employed during the course of this research. The specific methodology utilized was a single, normative case study. The first section of this chapter explains why this particular methodology was chosen. Then issues of data collection, analysis and validity are addressed.

### **Why a case study?**

The first step in any research endeavor is to determine the type of question being asked. Who, what, why, when, how. This study is about how. How is Unity of Effort best attained in MSCA? How were MAFFS employed in Southern California in the 2003 WFF season? This research has the goal of enumerating specific critical areas of concern regarding Unity of Effort in USNORTHCOM's MSCA operations, with an eye towards developing a template for these operations. The focus is on the formal command structure involved in limited military operations. As such, this research does not require strict control of its research subjects, but simply access to documentation of previous events and to the individuals involved in those events. While partially historical in nature, the research is designed to provide an answer to a current dilemma. Given these considerations the case study methodology is preferred for this type of research (Yin, 2003: 5). It is the favored methodology for analyzing contemporary events when subject behavior cannot be manipulated, as is the situation with this research.

Two considerations drive the decision to focus on a single case for this research. The first is the representative nature (Yin, 2003: 41) of the MAFFS for MSCA. As seen in Chapter 2, MAFFS WFF support is clearly a form of MSCA. It involves multiple Air Force units in different legal status and poses a complicated problem for achieving Unity of Effort. This scenario, while fairly unique in Joint Operations, will be typical in missions executed by

USNORTHCOM. Second, the relative simplicity of the MAFFS mission allows for clear study and evaluation. Focusing on a historically well-established MSCA mission, with developed planning and procedures, involving a relatively small number of Joint Commands and Air Force units, has the potential to facilitate the development of a clear template applicable to other MSCA missions.

A normative case study involves analyzing a case from a predetermined perspective (Routio, 1999). For this research joint and air force doctrine will provide the normative perspective. While this might be considered subjective, relying on doctrine as normative provides a common reference frame and facilitates the direct comparison of planning and execution of military operations against doctrinal guidance. For the purpose of this study, use will be made of the doctrinal framework synthesized in Chapter 2 to evaluate the planning and execution of the MAFFS mission.

This study can be viewed as either holistic or embedded depending upon what one classifies as the units of analysis (Yin, 2003:42). The use of a single doctrinal framework and analysis of a particular military operation lends itself toward a holistic interpretation. However, given its' three-phase nature (planning, execution, and filtering) the research could be viewed as embedded. However, the research is focused on a single concept, Unity of Effort, and analyzes that concept through the lens of a single operational employment, MAFFS in Southern California in 2003. The unit of analysis in this case is the achievement of Unity of Effort in MSCA. Hence, the study is more accurately viewed as holistic.

### **Form of Data Collection**

Case studies draw data from numerous sources. Yin (2003) lists six: documentation, archival records, interviews, direct observations, participant observation and physical artifact.

For this case study two primary sources of data will be analyzed and evaluated against the Unity of Effort synthesis diagram and pillars from Chapter 2. These sources are documentation and interviews.

## **Documentation**

The use of documentation sources will be limited to the first two phases of research: analysis of the planning and execution of the 2003 MAFFS employment in Southern California. The actual sources, method of collection, as well as disadvantages, are described below.

The Joint Operation Planning and Execution System (JOPES) break military operations into two primary phases, planning and execution. During each phase, JOPES regulations provide guidance on how applicable documents for the phases are to be developed and approved (CJCS, 1999 and 2001). Since the MAFFS is a peacetime mission, planning documents developed during the deliberate planning cycle should result in a Functional Plan (FUNCPLAN). Each command level organization should develop a separate plan. These planning documents are available from the responsible offices inside the planning divisions at their respective commands. Commands/organizations involved in the MAFFS mission were detailed in Chapter 2 and include: JDOMS, USNORTHCOM, USTRANSCOM, ACC, AMC and 1 AF. The C<sup>2</sup> structure should be contained in Annex J to the FUNCPLAN. Additional documentation comes in the form of the current MOUs related to the MAFFS mission, available from AMC/A3G office. Together the plans and the existing MOUs, provide the planning documentation necessary to evaluate the planned C<sup>2</sup> structure for the MAFFS mission.

For the execution phase, JOPES directs the use of Execution Orders (EXORDs) and Deployment Orders (DEPOORDs). These orders are disseminated via the Defense Message Service and e-mail and are archived by duty officers on shift at the various commands.

Additionally situation reports (SITREPS) are sent routinely between various command levels using the same systems. Collectively this message will be used to reconstruct the C<sup>2</sup> structure directed for the operational employment of MAFFS during the 2003 season.

The use of documentation presents two disadvantages. It can be difficult to access, incomplete, inaccurate, and subject to selectivity bias (Creswell, 2003: 187). In this case, access, completeness and accuracy is assured since all documents are unclassified and freely available on the NIPRNET and published by reputable military sources. Bias in document selection will be avoided by obtaining and analyzing all published planning and execution documents of relevance. The small nature of the case makes this feasible.

## **Interviews**

Interviews will be used during two phases of this research. The interviews used during each phase will differ in character. In this section, details of the interview format relative to each phase of research are described. Additionally a discussion of the potential weaknesses of interview data is presented.

During the reconstruction of the MAFFS operation, phase two of the research as described below, interviews were conducted with key players who participated in the 2003 MAFFS employment. Additional interviews were conducted with individuals with specific knowledge relevant to the operation. These interviews took the form of guided conversations, were conducted in an open manner and were designed to clarify issues raised during the analysis of documentation gathered for the employment of MAFFS during the 2003 season. Interviews were conducted with the following individuals:

- Brigadier General John Iffland: 146 AW/CC, 146 AETF/CC, JTF-WFF/CC
- Brigadier General Paul Selva: TACC/CC
- Colonel (Ret) William Scott: 1 AF/A5OX (MAFFS Planner)
- Lieutenant Colonel Kris Chrisman: MAFFS Mission Commander, 146AW

- Lieutenant Colonel Luke Coker: MAFFS Mission Commander, 302 AW
- Lieutenant Colonel Michael Exstrom: MAFFS Mission Commander, 153 AW
- Lieutenant Colonel Richard Gibson: AMC/A3G (AMC MAFFS expert)

For phase three of the research, interviews were conducted with the sitting wing commanders at units assigned the MAFFS mission. These interviews took the form of focused interviews and were designed to provide an expert opinion on the results of the research to that point. A specific script was developed to focus on the areas of critical concerns and proposed C<sup>2</sup> constructs developed during phases I and II of the research. A copy of this script can be found in the appendix. The wing commanders were chosen for their resident expertise and particular interest in the MAFFS mission. Three of the four sitting wing commanders were interviewed. One interview was not conducted due to multiple scheduling conflicts. Those interviewed are listed below.

- Colonel Steven Friedrichs: Incoming 146 AW/CC
- Colonel David Hatley: 145 AW/CC
- Colonel Richard Moss: 302 AW/CC

For all interviews, information of significance was transcribed by the interviewer and is available upon request. No audio record was made.

Interviews present several potential problems: bias from poorly constructed questions, response bias, poor recall, and reflexivity (interviewee telling the interviewer what he wants to hear). Reconstruction interviews will be focused on specific details of the events, so wording of questions should not be significant. Phase three validity interviews were guided discussions, so responses were not restricted by the nature of the question asked. All parties interviewed had strong interest in this research. No parties were intentionally excluded. Only one of the planned interviews was not conducted due to scheduling conflicts. The events took place a mere 5 months ago, so recall should be strong. And the researcher was not in any position to influence

the answers given by interviewees since they were the subject matter experts and out-ranked the researcher by several grades.

Table III-1 provides a useful summary of the sources of information used in each of the phases of research.

	Phase I	Phase II	Phase III
Documentation	JOPEs Planning Products, AF-States MOU	JOPEs Execution Products, SITREPS	None
Interviews	None	Open-ended with major players	Guided with sitting MAFF WG/CCs

**Table III-1 Summary of Sources Used for Various Research Phases**

### **Steps of data analysis**

The data analysis proceeded through three phases. The first two phases analyzed the planning and execution phases of the 2003 MAFFS season against the Unity of Effort synthesis and six key principles for Unity of Effort in MSCA developed in Chapter 2. The third phase filtered the results of the first two phases through a group of subject matter experts. Finally research results were provided to all individuals interviewed to ensure accuracy and applicability.

### **Analysis**

Phase I analysis utilized documentary data gathered for the reconstruction of the planning phase, while phase II encompassed both documentary and interview data collected for the reconstruction of the execution phase. The analytic approach applied to phases I and II was to thoroughly read all gathered documents for information relevant to the framework and pillars developed in Chapter 2, with notation of key information. Selected information was then evaluated against the framework. For phase II, outstanding questions were noted and subsequently answered during the interview process. The results were displayed in tabular form



with each command level given a subjective rating for each of the six C<sup>2</sup> pillars. The ratings were +, 0, or - for positive (contributed to Unity of Effort), neutral, or negative (detrimental to Unity of Effort), or NA for not addressed (which could be viewed as negative) for the six C<sup>2</sup> pillars. Additionally, C<sup>2</sup> org charts were drawn on the basis of documentation for both planning and execution. This analysis was then used to critically reflect on the evidence and identify specific areas of critical concern and develop proposed C<sup>2</sup> templates for MSCA operations.

The third phase filtered the combined results of the analysis of phases I and II through group of subject matter experts, sitting MAFF WG/CCs. The commanders were interviewed about their opinions of the results of phase one and two of the research, as well as be encouraged to comment on future notional C<sup>2</sup> structures. Their comments on critical areas were given subjective values of concerned, neutral or unconcerned. Their answers were collated and displayed in tabular format.

### **Member Checking**

After compiling research results, everyone interviewed was provided that portion of the research where they provided any input. Comments received back from members were incorporated into the final text of the paper.

### **Validation/Reliability**

In any research, validity and reliability are of utmost concern. Three forms of validity (construct, internal, and external) are important in qualitative research, as well as issues of reliability. These forms are dealt with here in order to demonstrate reasons for confidence in the studies results.

## **Construct Validity**

Construct validity is concerned with ensuring the correct operational measures are used to analyze the concepts under study. Construct validity can be achieved through the use of research protocols, such as use of multiple sources of evidence and through member-checking (Yin, 2003:35). The use of multiple sources allows for the development of converging lines of inquiry, essential a process of triangulation (Yin, 2003: 98). In this research, this is accomplished through compilation of documents from different sources involved in the JOPES process relevant to C<sup>2</sup> as well as the use of documentation and interviews for reconstructing the employment phase. Member-checking, taking results back to original participants, in this case individuals interviewed during the reconstruction phase, provides an additional review of research results for accuracy (Creswell, 2003: 196).

## **Internal Validity**

Internal validity is only a concern during studies seeking to determine a causal connection. The MAFFS research is not involved with making that kind of determination and as such is not concerned with ensuring internal validity.

## **External Validity**

The extent with which the results of a specific study can be generalized to other areas is the subject of external validity (Yin, 2003: 34). Cases studies achieve external validity through analytic generalization. This cannot be ensured in a case study with a sample of one. However, through future application of the research results to other areas and confirming their usefulness, external validity will be achieved. Areas for future research are noted in Chapter 5.

**Reliability**

Anyone attempting to replicate a study should be able to achieve the same results. A high level of reliability can be achieved by clarifying any bias the researcher brings to the study and highlighting any discrepant or negative information running counter to the themes of the research (Creswell, 2003: 196 & Yin, 2003: 35). Other than being an aviator, this researcher does not feel his brings any significant bias to the research. The researcher has no vested interest and no particular opinions relevant to the research other than a general reliance on Air Force doctrine (especially as it relates to a single airman commanding all air assets in a given theater of operations). Negative information will be highlighted in Chapter 4 as it is encountered and summarized in Chapter 5 if significant.

## **Chapter 4 – Analysis**

The broad research question to be answered in this research is how USNORTHCOM can achieve Unity of Effort when providing Total Force air support to MSCA? To accomplish this goal, this chapter presents a case study of the 2003 Southern California MAFFS employment. Through the reconstruction and analysis of the MAFFS C<sup>2</sup> during the 2003 season and filtering the analysis through a group of subject matter experts, this research explores the possibility of developing a template (standardized format) for structuring forces to facilitate mission accomplishment.

As described in Chapter 3, the research analysis was conducted in a three phase format. The first phase focused on analysis of the planning for the 2003 WFF season. The second phase centered on a reconstruction of the employment of MAFFS during the California 2003 WFF season. Analysis of the first two phases resulted in the identification of critical areas relevant to achieving Unity of Effort in MSCA operations. For the third phase these critical areas and proposed solutions were filtered through three sitting wing commanders assigned the MAFFS mission.

### **Phase I – Planning**

Each year in late spring the Joint Director of Military Support (JDOMS) office issues a Planning Order that directs specific agencies to conduct planning for the upcoming hazard season (this includes wildfires, hurricanes, etc). For the 2003 season, no PLANORD was issued due to the heavy workload during the organizational transfer of the former DOMS from the Department of the Army to the Joint Staff. However, the various agencies traditionally involved in MSCA operations conducted planning in their usual fashion.

As detailed in Chapter 3, sources used for this reconstruction are the JOPES Deliberate Planning Process products, primarily PLANORDS and OPORDS. The AF-States MOU also provided useful background reference information.

## **USNORTHCOM**

At the beginning of the 2003 WFF season, USNORTHCOM was still in the process of standing up a new unified command. Even in the midst of this tremendous turmoil USNORTHCOM issued a PLANORD that laid the foundation for WFF planning efforts (USNORTHCOM, 2003f). With regard to the six C<sup>2</sup> attributes, most of the PLANORD is quite general and not amenable to specific analysis. It assumes operations will be conducted under existing MOUs. The PLANORD directs the supported commander to establish C<sup>2</sup> for the deployed forces. It specifies OPCON for DOD assets will be transferred from supporting commanders to the supported commander. It also instructs both NORTHAF and ARNORTH to be prepared to nominate a JTF commander, establish a JTF for WFF operations and accept OPCON of forces provided to the supported commander. The impression is given that all forces will operate under a single JFC. This could entail the mobilization of ARC forces. This impression is dispelled when direction is given to the Chief of the National Guard Bureau to ensure proper coordination with governors and adjutant generals of National Guard forces to be utilized in either Title 10 or Title 32 status. No specific mention is made of mobilization of AFRC assets. Additionally, there is no discussion of Unity of Effort and no mention is made of the use of coordinating authority for Title 5/32 forces or non-mobilized reserve forces. Brief mention is made of limiting unit deployments to 30 days in length (USNORTHCOM, 2003f).

## ACC/1 AF

Air Combat Command (ACC) is the air component of USNORTHCOM and is responsible for executing air component tasking for MSCA operations. As such ACC conducted preliminary planning and completed a draft PLANORD in the spring of 2003. A final version was published 11 July (ACC, 2003). The PLANORD recognizes the turmoil during the stand-up of USNORTHCOM and the JDOMS transition. It specifically highlights the need for new command relationships to develop executable MSCA support plans. The PLANORD delegates this planning responsibility for MSCA missions in CONUS to 1 AF and directs 1 AF to publish an OPOD or CONPLAN (depending upon which line is referenced). Thus the PLANORD is relatively light on material that is amenable to detailed analysis. However, several important points are raised. The PLANORD directs 1 AF to identify a COMAFFOR, either the 1 AF/CC or a designated O-6 or above. It directs 1 AF to determine the command relationships required to execute a WFF operations and requests forces be presented as a single-service task force or as the air component of a JTF. It highlights that OPOD of 1 AF-WFF will transfer to Commander, USNORTHCOM, (CDRUSNORTHCOM) for deployed USAF forces, with the expectation that OPOD will be further delegated to the COMAFFOR (through the JFC, if a JTF is established). It makes explicit that deployed units will *activate* as expeditionary units and attach to 1 AF-WFF for ADCON purposes (ACC, 2003).

1 AF complied with the direction of the ACC PLANORD and drew up a draft Operations Order. (This probably should be a FUNCPLAN, but that is a minor point). A final version was never formally published (1 AF, 2003). The draft OPOD designates the 145 AW/CC as 1 AETF-WFF/CC and the COMAFFOR for WFF operations. The process used to determine that nomination is not discussed. The draft stipulates that all USAF forces operating in Title 10

status as part of the AETF will receive mission orders from the AETF/CC before beginning operations. It describes Title 32 forces as operating under cooperative authority at the direction of their state. (Cooperative authority is not a recognized term from doctrine, but was the name used for the modification that was eventually made to coordinating authority as a result of the recommendations of Gen Fogleman's provisional team. See Chapter 2). The draft lists CDRNORTHAF as the supported USNORTHCOM Air Component and delegates those responsibilities to 1 AF, who is also designated the JFACC. The CDR of 1 AETF-WFF will be dual-hatted as the COMAFFOR, responsible for all USAF assigned and attached forces (1 AF, 2003).

Aside from the formal planning accomplished in 2003, ACC still had an OPORD on the books for MAFFS mission: ACC Operation Order 36-95, Coronet Forest (ACC, 1995). This OPORD was published in 1995, prior to the use of an AETF construct for MAFFS operations. The C<sup>2</sup> structure was minimal under this plan and reflected the historical method of employment since the beginning of the mission in 1974. Under 36-95, OPCON remained with the AFRC or the respective state. There is no consideration of Unity of Command or Effort (ACC, 1995). This OPORD had no visible influence on planning during the 2003 season.

## **TRANSCOM/AMC**

Although designated as a supporting command for WFF in the USNORTHCOM PLANORD, United States Transportation Command published no formal planning documents regarding WFF efforts. Air Mobility Command wrote a draft OPORD 36-03, PHOENIX FOREST, in fulfillment of the standing Air Force requirement to augment USFS fire fighting capability with MAFFS units. (Once again this should probably be a FUNCPLAN). Although never published in final version, (due to USNORTHCOM objection to AMC publishing an

OPORD for a mission AMC did not own) it is much more exhaustive than any other planning documents covering WFF, making it more amenable to systematic analysis (AMC, 2003).

1. Single Commander – The stand-up of at least an AETF is directed. This together with the appointment of a COMAFFOR for all Air Force assets places a single commander in charge of the MAFFS efforts in the area of employment.

2. Proper Authority – The draft directs the Commander, AFRC and the Director, NGB, to recommend through AMC/CC, to Commander, USNORTHCOM, a commander from a group of 12 specially qualified personnel (an O-6 or above Wing/CC, Wing/CV, or OG/CC or a MAFFS unit). This individual is to be placed on Title 10 G-series order for 91 days or more. A single commander is designated with the proper legal authority over Title 10 assets to prosecute the MAFFS mission. Additionally it specifically mentions the AF States MOU as the source for deriving coordinating authority over ANG forces (AMC, 2003: C-6). The draft grants waiver authority to the AETF/CC for items relating to the fire-fighting mission. However normal flight waivers remain in accordance with directives (AMC, 2003: C-3).

3. Simplicity – The AETF/CC will exercise ‘coordinating command authority’ to control non-federalized Air National Guard assets and ‘operational control command authority’ over Air Force Reserve Command assets. These command channels are easily visualized. However, coordinating authority is not truly a command authority and is subject to the vagaries discussed in Chapter 2. One drawback is the absence of discussion of the need for coordination with the governor/adjutant general for states providing out-of-state MAFFS assistance, although this is covered in the AF-States MOU.



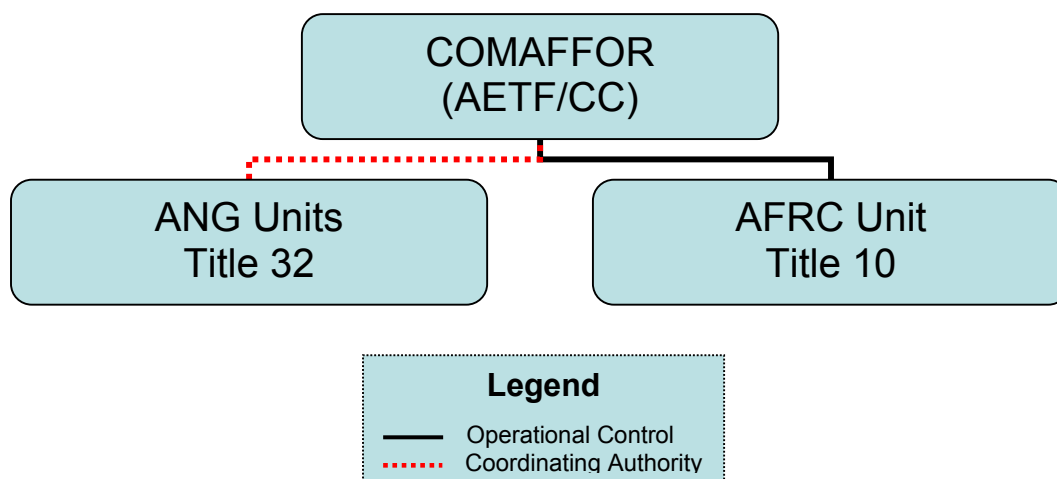
4. Span of Control – The draft address the control of all AF and ANG assets and directs that the possession of the appropriate staff for controlling these assets be considered when selecting an AETF/CC.

5. Unit Integrity – Inter-fly of aircrew members will be at the direction of the AETF/CC (assuming his is dual-hatted as the AEG/CC) for all assigned (or attached) members falling under the AF-States MOU or in Title 10 status (AMC, 2003: C-3).

6. Flexibility – The draft does not leave much room for flexibility. It stipulates the command structure for the AETF/CC through the appointment of a Mission and Deputy Missions Commanders for each operating location. It does not provision for ARC forces acting in a variety of statuses. It anticipates all ANG to be non-activated and all AFRC forces to be OPCON to USNORTHCOM.

### Reconstruction of Planning C<sup>2</sup> Structure

Based on the previous analysis of the planning documentation the following C<sup>2</sup> structure can be reconstructed. The black line diagram is presented in Figure IV-1. Essentially the



**Figure IV-1 Reconstructed 2003Planned C<sup>2</sup> Structure for MAFFS**

planning documents present a structure where a single COMAFFOR is designated and is given OPCON over AFR and would exercise coordinating authority over ANG assets.

### **Analysis Results and Critical issues**

The results of the planning analysis are presented in tabular form, along with an enumeration of issues identified during this analysis.

	Unity of Command	Single Commander	Chain of Command	Span of Control	Unit Integrity	Flexibility
USNORTHCOM PLANORD	+	0	0	NA	+	+
NORTHAF PLANORD	0	+	0	+	NA	0
AMC OPORD	+	+	+	+	0	—

**Table IV-1 Results of 2003 MAFFS Planning Phase Analysis**

All available planning documentation made the assumption that ARC forces will be available, with the exception of the AMC OPORD which did not list any assumptions. Given the increased operational tempo for all forces, active and reserve, it would seem prudent to give some thought to the event that forces might be activated but available. As will be seen, this turned out to be the case during the 2003 season.

Not much attention is given to AFRC forces. It is assumed that all Air Force Reserve assets will be activated/mobilized and OPCON transferred to USNORTHCOM for delegation to the JTF or AETF/CC. No discussion is present on who transfers OPCON to USNORTHCOM (should be AMC, the gaining command for activated MAFFS units, or AFRC, for non-activated MAFFS units). No discussion is given to how command authority is to be exercised in the absence of the transfer of OPCON or in the absence of activation. This leads to the next critical issue.

There is no discussion of what factors need to be considered when making the decision to mobilize/activate ARC forces. Given the variety of statuses and situations that can arise in MSCA missions, it would be helpful to have some prior planning done on the aspects of the mission that might drive a need for larger scale mobilization/activation.

On a more minor note, many terms are used inconsistently. What is a USAF asset? Are ANG assets in Title 32 status USAF assets? MSCA planning should be published in FUNCPLAN, not OPORD. Cooperation authority and coordinating command authority are not defined in doctrine although their meaning is evident given the context.

Overall planning at higher levels was vague. This is attributable to the new emphasis on and new organizations involved in the MAFFS mission. The planning done by AMC was fairly exhaustive but could have covered the few additional areas mentioned. However none of these areas warrants being labeled a critical area.

## **Phase II - Employment**

DOD assistance in the 2003 Southern California wildfires proceeded through three stages. During the first two stages, increased DOD involvement was requested by NIFC and approved by the Secretary of Defense. The first stage was the AETF stage where initially two, then six federally-activated MAFFS units were requested. The second stage was the JTF stage, which included a request for 6 CH-53 helicopters and one military battalion (500 firefighters). The final stage was the termination of operations after the majority of wildfires were contained. Below a reconstruction of these stages of WFF operations is presented. This reconstruction used the flow of message traffic establishing the C<sup>2</sup> relationships for military forces involved and interviews with key individuals involved in the construction of said relationships. The phase ends with an analysis of those relationships and identification of critical areas of concern.

One note, the nature of the response to wildfires, driven by a multitude of political and environmental concerns as well as the speed at which assets were brought to bear, meant coordination/execution was often done on a verbal basis, with the paperwork following later. Indeed this was noted in the 1 AF After Action Report to USNORTHCOM (1 AF, 2003: 3). Although this does not impact the reconstruction, it does mean some documents directing action are dated after the action had already taken place. The discovery of these instances is left as an exercise for the reader.

### **Stage I: 146th Air Expeditionary Task Force**

On October 25, 2004, the State of California Office of Emergency Services contacted the 146th Airlift Wing to bring the 2 MAFFS units assigned to the wing onto state activation. Brigadier General John Iffland, commander, 146 AW, initiated a recall and placed crews into crewrest in order to generate the first operational sorties the next day (Iffland, 2004). One problem presented itself. Several aircrew members identified in the USFS MAFFS Operating Plan were mobilized under Operation NOBLE EAGLE. This situation was not anticipated during planning, which assumed ARC assets would be available. After conferring with his state chain of command, BG Iffland contacted the Tanker Airlift Control Center and initiated a discussion with the TACC/CC, BG Paul Selva. They agreed there would be no impact to NOBLE EAGLE operations if the aircrews were employed in support of the WFF. However there was (and still is) no existing command structure that allows placing Title 10 forces under the control of a Title 32 commander. The generals agreed AMC would retain OPCON of the aircrew, while the sorties flown by these crewmembers would be assigned AMC mission numbers. BG Iffland exercised no formal command authority over these forces but provided tactical direction. This arrangement remained for the duration of the WFF efforts in Southern

California (Iffland, 2004; Selva, 2004). No further attempts were made to clarify the situation once the 146 AETF stood up and BG Iffland was placed on Title 10 status.

On October 26th, 2003, the National Interagency Fire Center determined additional resources were needed to fight wildfires raging in the Southern California area. NIFC forwarded a request for assistance (RFA) to JDOMS for 2 MAFFS units to assist in WFF efforts (NIFC, 2003b). The duty status of those assets was not mentioned in the request, however a fund cite for mobilization and deployment costs was provided, implying the activation of forces involved. These two MAFFS units would operate in addition to the two MAFFS units from the 146 AW already assisting in WFF in mostly SAD status (with the exception of the crews mobilized for NOBLE EAGLE). The RFA was passed through appropriate channels and was approved by the Secretary of Defense. JDOMS issued an execute order on 27 October to Commander, USNORTHCOM, to provide DOD support to NIFC in the conduct of WFF operations. EXORD 03-06 directed Commander, USNORTHCOM, to “*deploy two MAFFS equipped C-130 aircraft*”, support personnel, and a C<sup>2</sup> element to Channel Island ANG and transfer OPCON of said forces to Commander, USNORTHCOM (JDOMS, 2003a). Although the activation of MAFFS units is not made explicit in the EXORD, the order to deploy conveys the intent that forces would operate in Title 10 status (Reed, 2004). Beyond designating basic supporting/supported commands and NIFC as the LFA no further direction was given for command relationships (JDOMS, 2003a).

In response to the JDOMS EXORD, USNORTHCOM issued an EXORD requesting CDRUSTRANSCOM “provide and deploy up to eight MAFFS equipped C-130 aircraft with associated support and C<sup>2</sup> personnel,” as well as transfer OPCON of DOD forces to CDRUSNORTHCOM upon arrival in CA. The EXORD directed CDRNORTHAF to accept

OPCON of DOD personnel and equipment supplied to WFF operations. Additionally CDRNORTHAF was to “provide overall mission C<sup>2</sup> structure and establish command relationships and specify responsibilities and authority” (USNORTHCOM, 2003b). No mention was made of Coordinating Authority for Title 32 forces involved. Neither the JCS nor USNORTHCOM EXORD listed any of the planning documents discussed above or the existing AF WFF MOU as a reference.

Upon receipt of the JDOMS EXORD, TRANSCOM validated the requirement and directed AMC to fulfill the NIFC request. No specific action (at least no paper trail was left, to include a DEPOD) was taken to direct the activation or deployment of ARC individuals, units or aircraft (Moulton, 2004). AMC/A3G, using the criteria of geographic location and personnel availability determined the 153 and 302 AWs should each provide one MAFFS equipped aircraft (Gibson, 2004; Wood, 2004). TACC contacted the units and used the “ask not task” process to obtain volunteers for the mission. The units obtained volunteers, gained consent from state officials for the activation and the use of coordinating authority, as stipulated in the MAFFS MOU, and proceeded to deploy to Channel Islands to participate in the WFF operations. Initial aircraft arrived in CA on the 28th of October and began operations on 29 October (MAFFS Daily Report, 2003). AMC provided man-days for members deploying as Title 10 volunteers, an Active Duty Other Than Training status (Goodwin, 2004). However, not all members deployed were ADOT. Members from the 153 AW went in IDT and AGR statuses, both Title 32, in addition to some members in ADOT (Exstrom, 2003). 302 AW members participated in Title 5 and IDT, as well as ADOT (Coker, 2003). This variety of duty status is reflected in the first daily situation report published by the 1 AETF-WFF (1 AETF, 2003).

Since more than one unit was involved a Mission Commander was designated. Lt Col Kris Krisman, 145 AW, was placed in Title 10 status and assumed Mission Commander (MC) duties upon the arrival of the first off-station aircraft. Although not formally designated as such, the 153rd and 302d contingents had detachment commanders who coordinated their unit activities with the MC.

Concurrent to actions taken at TRANSCOM and AMC, ACC/CC, as the Air Component Commander to USNORTHCOM, published an EXORD establishing the 1st Air Expeditionary Task Force-Wildfire Fighting (1AETF-WFF) and appointed BG Iffland as the 1AETF-WFF/CC and the COMAFFOR for WFF. The EXORD designated 1AF/CC as the JFACC. It directed the activation of the 146 Air Expeditionary Group (AEG), designated BG Iffland as 146 AEG/CC, and assigned the 146 AEG to 1AETF-WFF. It attached all “federalized” MAFFS units provided by USTRANSCOM to 146 AEG. The 1 AETF-WFF/CC was directed to “accept OPCON/Coordinated Command of all assigned Air Force units.” The EXORD specified that Title 10 forces operating as part of the 1 AETF-WFF would receive mission orders from the CC, while ANG Title 32 forces were expected to operate under coordinating authority of the CC at the direction of their state. The existing AF-States MOU was not mentioned or listed as a reference. Special Order GB-10 was published 29 October, 2003, shortly after the assumption of operations in CA. As an illustration of the time lag between verbal authorization and subsequent official documentation, the AETF-CC published his first situation report in the evening of the 28th (1 AETF, 2003).

Approximately 24 hours after the first request from NIFC, a second RFA was submitted, asking for an additional 4 MAFFS units to assist in Southern California. This RFA specially requests the MAFFS under federal activation, a status not mentioned in the previous RFAs.

However this federally activated status referred only to the actual retardant unit, not to any ANG units or members. (This terminology was initially confusing, but harmless once understood.) This request was approved by the SecDef, forwarded to JDOMS, and resulted in the issuance of Fragmentary Order 1 to the JDOMS original EXORD. It contained minimal information beyond the changing of number of MAFFS units assisting in the WFF efforts (JCS, 2003b).

After receiving the JCS EXORD, TRANSCOM/AMC used the same process discussed above to source the new requirement. In reality, since the new request would utilize all MAFFS units, the sourcing was extremely simple. The 153 and 302 AW would send an additional MAFFS equipped C-130, along with the 145 AW provided their 2 units as well. The 145th took the unusual measure of flying their initial crews out to CA commercially. Thus when the aircraft arrived a day later they were able to begin operations immediately.

It was unnecessary for USNORTHCOM or NORTHAF to issue any modifications to their EXORDS since they provided the flexibility for up to eight MAFFS units in their initial EXORDS.

## **Stage II: Joint Task Force - Wildfire Fighting**

Over the next several days, the fire conditions deteriorated. This led NIFC to request additional assets from DOD to aid in the firefighting effort. On 27 October, NIFC requested six CH-53 helicopters. No mention of status is made. Additionally the fund cites do not include any mention of deployment or mobilization (NIFC, 2003e).

After SecDef approval, JCS, through JDOMS, issued a second fragmentary order on October 29th. This FRAGO made minor changes to the existing EXORD by tasking CDRUSPACOM to deploy six rotary wing aircraft to assist in fire suppression efforts. The



FRAGO specifies the transfer of OPCON of DOD forces to CDRUSNORTHCOM (JCS, 2003e). No further direction on C<sup>2</sup> was given.

USPACOM responded by issuing a TASKORD on 30 October to Commander, U.S. Marine Forces, Pacific, to transfer OPCON of six helicopters with attendant buckets and associated personnel and equipment to CDRUSNORTHCOM. Other than specifying the transfer of OPCON and designating the supported/supporting commanders, no further C<sup>2</sup> guidance was given (USPACOM, 2003a). Six Ch-53E helicopters, from the Marine Heavy Helicopter Squadron 466, an active-duty unit stationed at Marine Corps Air Station Miramar, began training for fire suppressions on October 30th. In addition to active-duty members, several Title 5 civil service members deployed from Camp Pendleton in support of the helicopter operations (JTF-FF, 2003b). Due to poor weather, training was not completed until Friday morning, the 31st. Helicopter WFF operations began on the afternoon of the 31st (JTF-FF, 2003a; JTF-FF, 2003b).

In response to the JCS FRAGO, USNORTHCOM issued Modification 1 to its EXORD on 30 October. It requested the transfer of OPCON of DOD forces to CDRUSNORTHCOM. It requested a Marine Liaison Officer (LNO) and a Marine Emergency Planning Liaison Officer (EPLO). The 1 AETF-CC was directed to take OPCON of USMC LNO and EPLO, but no specific direction was given on the helicopter units (USNORTHCOM, 2003c). None was necessary however since CDRUSNORTHCOM had previously delegated OPCON of all DOD forces participating in WFF efforts to the JFACC (USNORTHCOM, 2003b).

The initial response from the JFACC was to delegate OPCON of the USMC helicopter assets to the CDR 1AETF (1 AF, 2003a). However, since the WFF efforts now included the involvement of Marine forces, the JFACC made the decision to stand-up a Joint Task Force. So on 30 October, the JFACC directed the Joint Task Force-Wild Fire Fighting established at

Channel Islands. BG Iffland was the commander and would be dual-hatted as the CDR 1AETF (1 AF, 2003b). The JFACC delegated OPCON of designated Title 10 forces involved and reiterated the use of Coordinating Authority for Title 32 forces “through the existing MOU to include...MAFFS equipped C-130E/H aircraft...provided through USNORTHCOM/JFACC” (1 AF, 2003b). These statements were an expansion of previous direction on the use of Coordinating Authority and contained the first reference to the AF-States memo, however cryptically. The memo was still not listed as a reference.

On the 29th of October, NIFC, based upon an outlook of unfavorable conditions, once again requested additional assistance, this time in the form of a military battalion of firefighters. No mention of status was made. The request does use the term deployment in reference to the move of troops from their home station to an operating location (NIFC, 2003f).

With approval from the Secretary of Defense, the Joint Staff published FRAGO 3 to the WFF EXORD on 30 October. It directed CDRUSPACOM to “provide a military fire fighting battalion...to conduct fire suppression operations” (JCS, 2003d). The FRAGO specified the transfer of OPCON of one military firefighting battalion and approximately 60 command and support personnel to CDRUSNORTHCOM for the duration of operations. No specific direction was given to CDRUSNORTHCOM to accept OPCON of these forces, however previous EXORDS left the standing direction for CDRUSNORTHCOM to accept OPCON over all DOD forces involved in the WFF effort.

In turn, PACOM published Modification 1 to their TASKORD on 30 October, directing COMMARFORPAC to transfer OPCON of one battalion (500 firefighters) and 60 command and support personnel to CDRUSNORTHCOM (USPACOM, 2003b). Coordination was initiated

between NIFC, the 2nd Marine Battalion (11th Marines at Camp Pendleton) and the JTF for training of the battalion, tentatively set to begin 2 November (JCS, 2003d; JTF-FF, 2003a).

Simultaneous to PACOM actions, USNORTHCOM published Modification 2, directed CDRNORTHAF to accept OPCON of the Marine battalion upon their arrival in the operational area for the duration of WFF efforts (USNORTHCOM, 2003d). The JFACC message that stood up JTF-WFF contained delegation of OPCON to the JTF-WFF/CC for all Title 10 firefighting forces so there was no need for additional direction at that level (1AF, 2003b).

### **Stage III: Termination of Operations**

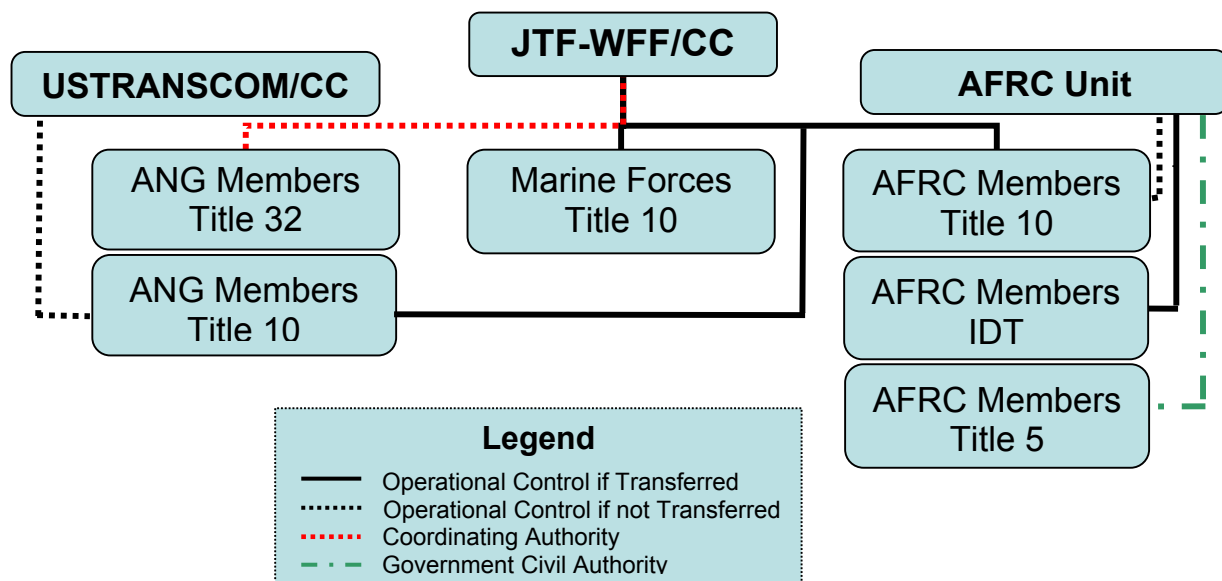
As the Marine helicopter units began training, a storm system moved into the Southern California region. Weather and wind conditions precluded MAFFS operations on the 30th and 31st and hampered helicopter training (JTF-FF, 2003b & 2003c). The rain, however, had an advantageous effect on overall fire fighting efforts. The weather let up slightly as the Marine helos began operational drops on Saturday (JTF-FF, 2003d). But the rain had such a dramatic effect on the fires that NIFC reevaluated the need for federal assistance. As a result, before the battalion of marines could even begin training, NIFC released the MAFFS airtankers, the battalion and the Marine helicopters in the evening of November 1st (NIFC, 2003g; NIFC, 2003h; NIFC, 2003i). The original JCS EXORD included guidance that directed CDRUSNORTHCOM “transfer/relinquish OPCON of redeploying personnel and equipment” upon completion of the support mission as determined by either himself or SecDef (JCS, 2003a).

In response to the release of assets by NIFC, USNORTHCOM issued its third and final Modification to the WFF EXORD. “Mission complete as of 01 Nov 03” (USNORTHCOM, 2003e). MOD 3 directed the redeployment of personnel and equipment and the transfer/relinquishment of OPCON of said forces to parent commanders no later than 6

November. With this guidance, JTF-WFF forces began preparation for redeployment. MAFFS airtankers performed administrative airdrops for already loaded retardant and system maintenance (JTF-FF, 2003d). Off-station MAFFS C-130s began departing Channel Islands on the 2nd of November. State-activated 146th aircraft and aircrews were released by state authorities the same day (JTF-FF, 2003e). The Marine helicopter RFA and the battalion RFA were declared closed as well. The MAFFS RFA remained open until redeployment of all off-station aircraft was completed on the 4th (JTF-FF, 2003f).

### Reconstruction of Execution C<sup>2</sup> Structure

Based upon the reconstruction of events presented above the following black line diagram can be built for the execution stage of MAFFS employment. The diagram displays the multiple duty statuses ARC members participated in and reflects the fragmented chain of command present during the 2003 Southern California WFF season.



**Diagram IV-2 Reconstructed 2003 Operational C<sup>2</sup> Structure for WFF**

## Analysis Results

The MAFFS mission is in a state of transition with respect to command and control. Prior to the 2001 fire season, MAFFS employments were handled by individual units. Since 2001 a COMAFFOR has been designated each season to oversee all AF assets involved in WFF efforts. With the stand-up of USNORTHCOM, a Unified Command has been given responsibility for the mission. Given this turbulent environment over the past three years, it is expected that not every detail with respect to C<sup>2</sup> would be worked out. With that in mind, the following analysis of the employment C<sup>2</sup> structure is presented. Analysis of Stage I is derived from the relationships involved in the AETF. Stage II analysis is derived from the command relationships relating to joint forces other than the MAFFS since the relationships regarding the MAFFS units did not change. No analysis of Stage III was performed.

	Unity of Command	Single Commander	Chain of Command	Span of Control	Unit Integrity	Flexibility
Stage I AETF	-	+	0	+	+	0
Stage II JTF	+	+	+	+	+	NA

**Table IV-2 Results of 2003 Southern California MAFFS Operations Analysis**

### 1. Unity of Command

Stage I – JCS and USNORTHCOM EXORDS left the specific impression that all MAFFS units would activate and deploy in Title 10 status. No direction at that level was given as to which specific duty status ARC forces should deploy in. All forces in Title 10 status would allow for direct C<sup>2</sup> of all assets involved. NORTHAF EXORDS and AETF/CC SITREPS present a different situation where each unit allowed individuals to determine the status they

would participate in. This requires the use of indirect means for achieving Unity of Effort (Coordinating Authority) and frustrates attempts to create clear black lines of control.

Stage II – For the JTF stage, all joint force OPCON was delegated to the JTF commander, who in turn was OPCON to the JFACC. The joint situation was made easier because all tasked forces were active-duty and thus Title 10.

## 2. Single Commander

Stage I – BG Iffland was appointed 146 AETF/CC and COMAFFOR for all DOD assets involved. Additionally a Mission Commander was designated to coordinate efforts at the operational level. Although BG Iffland did not have OPCON over all forces involved, no commanders from outside his chain exerted command influence over his operations.

Stage II – BG Iffland was also appointed the JTF-WFF/CC. In that capacity he was responsible for all DOD WFF efforts in the Southern California area.

## 3. Chain of Command

Stage I – If all MAFFS units participated in Title 10 status, OPCON transfer would have been clean. However, since they did not, the variety of statuses that ARC members participated make it difficult to trace the actual chain of command. For AFR forces in Title 10 status other than IDT, OPCON did transfer (assuming the legitimate of transfer of OPCON without a paper DEPOD). For AFR members in IDT, the chain of OPCON would have remained with AFRC. Similarly AFR members in Title 5 status would have remained under the supervision of their civilian bosses. For ANG members participating in Title 10 status, this status technically fractures their unit, with some in title 32 under coordinating authority but technically still in state control, with others in Title 10 under OPCON of the AETF or JTF/CC.

Additionally the involvement of ARC members in mobilized status adds further confusion to the picture. Prior to the establishment of the AETF, BG Iffland was not in Title 10 status and had no direct authority over members of his unit who were mobilized for Operation NOBLE EAGLE. Those members were AMC-gained assets. BG Selva allowed BG Iffland to give direction to these forces; however the true nature of this relationship is unclear. It appears to be a form of reverse coordinating authority, with a guard commander providing direction to Title 10 forces.

Stage II – Since no additional ARC forces were involved in the JTF stage, the black lines of OPCON were easily drawn from the deployed units to the JTF commander, with the exception of the Title 5 civilians.

#### 4. Span of control

Stage I – Give the limited number of assets employed during the first stage, the C<sup>2</sup> of MAFFS was not overwhelming. The Mission Commander provided direct interface with individual units and each unit provided a Deputy Mission Commander for a single point of contact with their unit members.

Stage II – The expansion of DOD efforts to the JTF level could have presented a more difficult situation. Units were operating from three locations. However the presence of liaison officers from all participating units at the JTF headquarters ensured proper oversight of all WFF activities and open lines of communication.

#### 5. Unit Integrity

Stage I – All MAFFS units were together for the duration of the WFF efforts. No attempt was made to separate individuals from their units.

Stage II – All joint forces remained together at their unit level for the duration of the JTF.

## 6. Flexibility

Stage I – The freedom for individuals to determine the duty status they would participate in provided tremendous flexibility for MAFFS units to obtain volunteers for the mission.

Stage II – The short duration of joint force involvement does not lend itself to a ready analysis of the flexibility of the C<sup>2</sup> structure.

### **Critical Issues**

CA ANG had individuals mobilized for Operation NOBLE EAGLE, who were not immediately accessible to BG Iffland while he was in SAD. However, a satisfactory working relationship was ironed out with BG Selva, but the full nature of this relationship was unclear. Additionally no attempt was made to clarify the situation once the AETF was stood-up. Access to ARC assets is a potential show stopper and is critical to mission success.

There was a disconnect between higher staff levels and the operational level. This disconnect is evident in the expectations of various players as to the duty status of the units that would be participating in WFF efforts. JCS, USNORTHCOM, and NORTHAF anticipated that units would be activated in Title 10 status. TRANSCOM, AMC, operational level leadership and the individual units anticipated that operations would proceed in a manner similar to past years, where the units were allowed the flexibility to determine the status that individuals would participate in. The use of multiple duty statuses and involvement of civil service employees prohibited the establishment of clear lines of control. Confusion over what duty statuses individuals participate in, whom owns whom and has the proper authority to control the mission, can be detrimental to mission accomplishment.

The participation of individuals in various duty statuses, not all with transferable OPCON, and the non-formalized process of transferring OPCON (lack of a DEPOD) during



this season highlight the essential disunity of command that was present during the MAFFS employment this past season. This disunity places a premium on the willingness for forces to take direction from someone other than their direct superior to accomplish the mission. It relies heavily on coordinating authority and implied consent (willingness for members to get the mission done regardless of the true command authorities involved).

The use of the words activation, deployment and mobilization is inconsistent between DOD members and between DOD and non-DOD organizations. For some activation and mobilization refer to bringing ARC forces onto Title 10 status. For others it refers to who pays the bill for utilization of MAFFS. Deployment implied Title 10 status to some, but not to others. This confusing terminology is a manifestation of disconnect between the various staff and operational levels previously discussed.

Of the concerns identified above the first three are considered to be critical to the successful employment of the MAFFS.

### **Models of C<sup>2</sup> Structure to Achieve Unity of Effort**

Building upon the three critical areas identified in the first two phases of research, three proposed constructs for achieving Unity of Effort in MSCA missions are advanced. The three constructs, along with key provisions necessary for their effectiveness (gained from the above analysis of the 2003 WFF season) are:

*Current model (CM):* This construct is the model developed during planning for the 2003 Southern California WFF season. It uses coordinating authority, through the existing MOU, to direct Title 32 assets and OPCON over Title 10 assets to accomplish the mission. In order for this model to be effective, communication/verbiage in message traffic needs to be clearer.

*New model 1 (NM1):* All forces in Title 10. In this construct all forces participating in MSCA efforts would be activated, at least on a volunteer basis, and OPCON would transfer to the AETF or JTF/CC. This construct looks like the original intention of the JCS during the events of 2003 as communicated via message traffic. In order for this construct to be effective, all units must be activated in Title 10 status. USTRANSCOM and AMC would have to publish DEPORDs and transfer OPCON of gained units to the AETF or JTF/CC.

*New model 2 (NM2):* Use dual-status commanders. Using the new provision in Title 32 that allows NG commanders to be in Title 10 and Title 32 status at the same time, a commander would have greater direct control over the forces participating in MSCA operations. This construct has the added benefit of giving the AETF or JTF/CC direct control over at least one state's guard forces. However it requires the involvement of the President.

### **Phase III – Interviews**

The final stage of this research involved filtering the results obtained from the two previous phases through a group of subject matter experts. These experts are the four sitting wing commanders of MAFFS wings (however only three were ultimately interviewed). An interview script was developed to focus the interview process. This script covered the CC's previous MAFFS experience, their comment or critique on the three critical areas and on the three proposed models for achieving Unity of Effort in MSCA missions.

Interviews were prefaced with a brief introduction of the interviewer and an explanation of the nature of the research. After briefly describing the results of the research, questions on the three critical areas, were posed using the format "As a potential MAFFS/CC is this something that would concern you?" A summation question regarding their overall impression of their experience with coordinating authority was then asked. For the three proposed models,

questions were phrased “What is your opinion of X model for MSCA missions?” Finally the opportunity for any final clarifying comments was given.

This section presents the results of the interviews using the same organization as the script and summarizes the impressions of the interviewees in tabular form. Interviews were conducted on April 29th, 2004. A copy of the script is found in the appendix.

### **Previous Experience with MAFFS Mission**

Of the three CCs, two (both ANG) had extensive experience with MAFFS. Two individuals grew-up in the MAFFS missions, one from the inception of the program in 1971. Only one had fairly limited experience and was unqualified to fly the mission.

### **Impact of Critical Areas**

#### *CA1: Access to the ARC*

All interviewees felt that access to the ARC was not a concern of the operational commander. The decision would be made at higher levels as to which mission took precedence. Two interviewees felt the issue could be resolved through more conscientious scheduling. Even given higher demands from OEF/OIF and NOBLE EAGLE, they felt that proper scheduling of MAFFS qualified personnel should make it possible to meet both the state and federal mission requirements.

#### *CA2: Disconnect between higher staff levels and operational levels*

One interviewee felt this issue was not a concern of the operational commander. Two others felt it was simply a result of the rapid change in C<sup>2</sup> structure in the MAFFS mission over the past four years. They did not think this was an operational disconnect, but simply a paper one caused by the different operational definitions held by various individuals. They felt clearer

wording would be helpful, but felt this problem would iron itself out as USNORTHCOM matured and the C<sup>2</sup> options solidified.

*CA3: Reality of disunity of Command*

All interviewees acknowledged the reality of disunity of command in the MAFFS mission, but felt that the flexibility gained by allowing individuals to manage their own duty statuses was more important than being able to draw clean C<sup>2</sup> lines. They all felt the issue was transparent to the aircrews, as evidenced by the success of the MAFFS mission over the past 30 years. Two interviewees felt that the AETF or JTF/CC did not need command or disciplinary authority over individuals participating in MAFFS efforts due to the close working relationship the four MAFFS wing commanders already possessed. One individual commented that the involvement of higher staff levels (USNORTHCOM in particular) was good from a public affairs perspective and provided the AETF or JTF/CC with more political top cover when dealing with sensitive issues. One individual felt the presence of Title 5 supervisors in their MAFFS deployment alleviated concerns over Title 5 participation.

*Experience with Coordinating Authority*

Two interviewees considered their experience with coordinating authority to be positive. One interviewee felt the issue was transparent at the operational level.

	Critical Areas for Achieving Unity of Effort		
	CA1	CA2	CA3
Concerned	0	2	2
Neutral	1	0	1
Unconcerned	2	1	0

**Table IV-3 Interview Responses on Critical Areas**

## **Proposals for Achieving Unity of Effort**

The overall impression gained during the interviews was that the potential MAFFS/CCs were not terribly concerned with the actual C<sup>2</sup> structure as long as it gave them the flexibility to allow members to manage their own status. The MAFFS community is fairly small, only 8 MAFFS units with a 2-1 crew ratio. Most members involved have participated in the MAFFS mission for a long time. All members participate in annual training together to get certified by NIFC for the upcoming fire season. Potential AETF-WFF/CCs participate in this training. So the individuals and commanders have worked together and have a fairly long history. This working repoire alleviates many concerns commanders might have with a fractured C<sup>2</sup> structure. With that said, the interviewees did make insightful comments on the three C<sup>2</sup> structure proposals.

*Current model (CM): use coordinating authority, current MOU*

All interviewees were satisfied with the C<sup>2</sup> structure in place for the previous season. They felt this model was an effective structure primarily because of the healthy working relationships between the commanders themselves and the various organizations involved in the MAFFS mission. One individual commented that with the right leadership the perceived gaps in Unity of Command were not as important. All interviewees felt this structure might not be as appropriate for MSCA missions without the close ties between participants and commanders.

*New model 1 (NM1): all forces in Title 10*

None of the individuals felt this structure would be good for the MAFFS mission. One individual felt it would clarify lines of authority, but commented that it would also severely restrict the flexibility of members to manage their own duty status. Every individual felt this flexibility was critical in obtaining volunteers for a mission that took additional commitment and

time away from home. In the current operational environment, they felt it would be difficult to get volunteers if members were required to participate in Title 10 status.

*New model 2 (NM2): use dual-status commanders*

Two interviewees felt the dual-status commander would be helpful in clarifying chain-of-command issues for the MAFFS mission and would be a positive contribution. One individual felt the new legislation was one-sided, only allowing ANG/CCs to hold command authority over Title 10 assets, but not the reverse (AFR/CCs holding command authority over Title 32 assets). Additionally, this status would require the involvement of the President and all interviewees felt this might delay the execution of the MAFFS mission.

## **Chapter 5 – Conclusion**

The primary aim of this research was to identify critical issues relevant to Unity of Effort in C<sup>2</sup> of Total Force assets prosecuting the MSCA mission, with an overall goal of identifying a framework, a C<sup>2</sup> construct, for obtaining Unity of Effort in MSCA missions. The fruits of this research are presented here. First a reappraisal of the critical issues and proposed C<sup>2</sup> structures in light of the interview results is presented, along with specific recommendations to improve the current situation. Additionally several areas for future research are highlighted.

### **Re-evaluation of Critical Areas**

After conducting the subject matter expert interviews, the critical areas and proposed C<sup>2</sup> structures were re-appraised. The results are presented here.

#### **Critical Areas for Achieving Unity of Command**

*CA1:* Having individuals readily accessible for the MAFFS mission is more of a balance between state and federal missions. It is not an issue readily influenced or of importance to the operational commander. However, given that wing commanders can maximize the availability of crewmembers through proper scheduling and mission assignment.

*CA2:* As USNORTHCOM matures, disconnect between staff and operational levels will probably disappear. To assist in this maturation, an effort should be undertaken to rigorously define all duty statuses ARC members can be in and the operational impact of each of the duty statuses. Words that are commonly used, but hold different meanings for different branches of the ARC and AD, should also be clearly defined. These definitions could be published in either an ARC handbook or updated in the DOD Dictionary of Military Terms.

Additionally the command authorities and the means of sourcing military units should be more clearly defined in OPLANS and EXORDS. Finally DEPORDS should be published to document and clarify the transfer of OPCON for Title 10 forces.

CA3: While the involvement of multiple ARC components and members in various duty statuses will continue to result in a fragmented chain of command for the MAFFS mission, the flexibility gained far outweighs any difficulties this fragmentation might engender.

### **Proposed C<sup>2</sup> Structures**

*There is no single model for all MSCA missions.* This conclusion is drawn from the realization that the C<sup>2</sup> structure present in the MAFFS mission is not necessarily the best C<sup>2</sup> structure for other MSCA missions. Interviewees felt the flexibility gained by allowing members to manage their own duty status would not necessarily be as advantage in a MSCA mission where participants were not chosen in advance and given special training. In situations where the close working relationships between various agencies, the military members and the commanders is not present, having all forces in Title 10 would be more beneficial.

Given this evaluation, it seems best that the structure developed for different MSCA missions should be designed specifically with that mission in mind. It might, however, be possible to develop several C<sup>2</sup> templates (perhaps the three presented in this research) as a baseline and put guidelines in place that facilitate the decision making process. Guidelines could take the form of sliding scales of national commitment or importance involved in different missions or the intensity/quality of relationships present between various forces, commanders and services involved in supporting different missions.



### **Future Research**

Replicate this research by applying this methodology to other MSCA missions. Other missions could be other air missions such as COMMANDO SOLO (EC-130 communications broadcast mission) or AERIAL SPRAY (C-130 aerial pesticide dispersal). Alternatively, ground or Army missions like G-7 summit support or large sporting events (Olympics, Super Bowl) could be analyzed.

Apply this methodology to other Services. Analyze the differences in perspectives on various duty statuses of ARC forces as well as differences in interpretation of command authorities. This analysis should be incorporated in whatever document is published as a result of the recommendations made above.

Further explore the potential of dual-status commanders to provide Unity of Command for MAFFS and other MSCA missions. This concept shows great promise in reducing our inability to draw clear lines of Operational Control. However it does have some drawbacks, as illustrated in the interview conducted as part of this research. The drawbacks as well as opportunities the dual-status commander provides should be fully delineated, with emphasis placed on which missions would benefit the most from the use of this command structure concept.

### **Summary**

Through the reconstruction of the C<sup>2</sup> structure during the planning and execution phases of the MAFFS employment during the 2003 Southern California WFF season, three critical areas were identified and three possible C<sup>2</sup> structure alternatives were developed. These three areas and structures were filtered through a group of subject matter experts. The results of these interviews provided key insights into the nature of the critical areas and on the relevance of each

of the proposed C<sup>2</sup> structures for the MAFFS mission as well as other MSCA missions. While it was determined there is no single C<sup>2</sup> construct for MSCA missions, this research did provide key insights into the nature of C<sup>2</sup> in MSCA operations and useful suggestions for improving, clarifying and streamlining the C<sup>2</sup> structure for MAFFS and other MSCA missions.

## **Appendix**

### **MAFFS Subject Matter Expert Interview Script**

#### ***Previous experience with MAFFS mission***

#### ***Impact of critical areas discovered in research***

CA1: Access to the ARC in cases where individuals may already be mobilized

CA2: Disconnect between higher level staffs and operational levels

CA3: Reality of disUnity of Command

ARC in various statuses, not all with transferable OPCON (Title 5, IDT)

Experience with coordinating authority

#### ***Proposals to achieve Unity of Command***

CM: use coordinating authority, current MOU

Improved communication/verbiage

NM1: all forces in Title 10

Execute in accordance to initial direction from JCS

NM2: use dual-status commanders

#### ***Final Thoughts***

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## **Abbreviations and Acronyms**

ACC – Air Combat Command  
AD – Active Duty  
ADCON – Administrative Control  
ADT—Active Duty for Training  
ADOT – Active Duty for Other than Training  
AEF – Air Expeditionary Force  
AETF – Air and Space Expeditionary Force  
AFB – Air Force Base  
AFI – Air Force Instruction  
AFPD – Air Force Policy Document  
AFR – Air Force Reserve  
AFRC – Air Force Reserve Command  
AGR – Active Guard/Reserve  
AMC – Air Mobility Command  
ANG – Air National Guard  
ANGS – Air National Guard Station  
AOR – Area of Responsibility  
ARC – Air Reserve Component  
ART – Air Reserve Technician  
CDF – California Department of Forestry and Fire Protection  
C2 – Command and Control  
CC – Commander  
CDR – Commander  
COCOM – Combatant Command  
COM – Commander  
COMAFFOR – Commander, Air Force Forces  
CS – Civil Support  
CSAF – Chief of Staff of the Air Force  
DEPOD – Deployment Order  
DepSecDef – Deputy Secretary of Defense  
DHS – Department of Homeland Security  
DOD – Department of Defense  
DODD – Department of Defense Directive  
DOMS – Director of Military Support  
DSO – Domestic Support Operation  
EP&R – Emergency Preparedness and Response  
ESF – Emergency Support Function  
EXORD – Execution Order  
FEMA – Federal Emergency Management Agency  
FRP – Federal Response Plan  
FTNGD – Full Time National Guard Duty  
FUNCPLAN – Functional Plan  
HLS – Homeland Security

IDT – Inactive Duty for Training  
JCS – Joint Chiefs of Staff  
JDOMS – Joint Director of Military Support  
JFACC – Joint Force Air Component Commander  
JFC – Joint Force Commander  
JOPES – Joint Operation Planning and Execution System  
JTF – Joint Task Force  
JWC – Joint Warfighting Center  
LFA – Lead Federal Agency  
MACA – Military Assistance to Civil Authorities  
MACDIS – Military Assistance for Civil Disturbance  
MAFFS – Modular Airborne Fire Fighting System  
MARFORPAC – Marine Forces Pacific  
MilTech – Military Technician  
MOA – Memorandum of Agreement  
MOOTW – Military Operations Other Than War  
MOU – Memorandum of Understanding  
MSCA – Military Support to Civil Authorities  
MSCLEA – Military Support to Civil Law Enforcement Agencies  
NICC – National Interagency Coordination Center  
NIFC – National Interagency Fire Center  
NORTHAF – Northern Command Air Forces  
OPLAN – Operational Plan  
OPCON – Operational Control  
OPORD – Operational Order  
PLANORD – Planning Order  
PSRC – Presidential Selective Reserve Call-Up  
RC – Reserve Component  
RFA – Request for Assistance  
SAD – State Active Duty  
SecDef – Secretary of Defense  
TACON – Tactical Control  
USFS – United States Forest Service  
USNORTHCOM – United States Northern Command  
USPACOM – United States Pacific Command  
USTRANSCOM – United States Transportation Command  
WFF – Wildland Fire Fighting

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